Civilian Involvement in the 1990-91 Gulf War Through the Civil Reserve Air Fleet

Charles Imbriani
CIVILIAN INVOLVEMENT IN THE 1990-91 GULF WAR
THROUGH
THE CIVIL RESERVE AIR FLEET

By
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Committee Member

The Graduate School has verified and approved the above-named committee members, and certifies that the dissertation has been approved in accordance with university requirements.
DEDICATION

This dissertation is dedicated to Fred (Freddie) Bissert 1935-2012. I first met Freddie over forty years ago when I stared working for Pan American World Airways in New York. It was twenty-two year later, still with Pan Am, when I took a position as ramp operations trainer; and Freddie was assigned to teach me the tools of the trade. In 1989 while in Berlin for training, Freddie and I witnessed the abandoning of the guard towers along the Berlin Wall by the East Germans. We didn’t realize it then, but we were witnessing the beginning of the end of the Cold War. It wasn’t long after, on August 2, 1990 that Saddam Hussein the Iraqi dictator invaded Kuwait in a brazen act of aggression. The world, elated with the end of the Cold War, was shocked out of it reverie. Soon after, the U.S. Department of Defense activated the Civil Reserve Air Fleet along with its twenty-seven member U.S. air carriers. Pan Am began its call for volunteer crews. Freddie and I were asked if we would be willing to take “off line” assignments to work the Pan Am flights picking up U.S troops for deployments to the Persian Gulf. As a team, we worked Pan Am’s CRAF flights at: Fort Hood, Fort Campbell, Fort Benning, Fort Bragg, Langley Field, Charleston, Volks Field, San Antonio, and Cherry Point Marine Corps Air Station. On January 20th shortly after the war began to expel the Iraqis from Kuwait, Freddie and I were asked if we would be willing to fly into the war theater on board Pan Am’s flights. We flew numerous troop and cargo flights out of Rome, the U.S. air base in Ramstein and the NATO air station in Sigonella Sicily. Our destinations into the desert were: Riyadh, Dhahran, Al Jubail, and Bahrain; all during the height of the war. We would remain to fly our troops home on the redeployment.

Twenty years after those events, when I told Freddie that I was writing a dissertation on the Civil Reserve Air Fleet’s participation in that war, he couldn’t do enough to assist me. He made several important contacts for me to interview, and provided me some useful written accounts. In January 2012, I asked Freddie if he would share his personal recollections of those events for inclusion into my dissertation. He was elated, and began setting them down. Freddie passed away unexpectedly that month and was not able to get anything to me. I hope this dedication pays proper tribute to Freddie for his professional and dedicated service to his country, to the experiences we shared, and to our longtime friendship. Freddie remains part of this work.
ACKNOWLEDGEMENTS

My sincerest appreciation goes to Dr. Peter Garretson, my major professor. First and foremost, Peter has always encouraged me during those frustrating and difficult times that invariably popup when taking on a research project of this size. Peter has spent many hours going over numerous drafts of my work and has always been positive and constructive in his critiques. I am not sure if I would have reached this point without the support and time that Peter has so generously afforded me. I remain indebted to him. My appreciation and thanks also extends to my committee members: Dr. Jonathan Grant, Dr. Dennis Moore and Dr. Irene Zanini-Cordi for their encouragement, support, and time they take out of their busy schedules to serve on my committee. They have always been professional, gracious, and understanding in all of our dealings. There are of course, many others, within and without of academia, who have encouraged me and supported my research efforts. A special thanks is due to all those who volunteered to be interviewed for this project; and to the many who contributed written and oral accounts of their experiences flying the CRAF missions into the Persian Gulf during Desert Shield/Desert Storm. It is to them that this work owes a true debt.
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AFB</td>
<td>Air Force Base</td>
</tr>
<tr>
<td>ALCE</td>
<td>Airlift Control Element</td>
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<td>AMC</td>
<td>Air Mobility Command</td>
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<tr>
<td>AOA</td>
<td>American Oversea Airways</td>
</tr>
<tr>
<td>APOE</td>
<td>Airport of Embarkation</td>
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<td>APOD</td>
<td>Airport of Debarkation</td>
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<td>ARINC</td>
<td>Aeronautical Radio Inc.</td>
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<td>ASC</td>
<td>Air Services Command</td>
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<td>ATA</td>
<td>Air Transport Association</td>
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<tr>
<td>ATC</td>
<td>Air Transport Command</td>
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<td>ATC</td>
<td>Air Traffic Control</td>
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<tr>
<td>AVG</td>
<td>American Volunteer Group - Flying Tigers</td>
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<td>AWTI</td>
<td>Airline War Training Institute</td>
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<tr>
<td>BLS</td>
<td>Bureau of Labor Statistics</td>
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<td>BLT</td>
<td>Battalion Landing Team – U.S. Marine Corps</td>
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<tr>
<td>CAT</td>
<td>Crisis Action Team</td>
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<tr>
<td>CBI</td>
<td>China Burma India Theater – WW II</td>
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<tr>
<td>CENTCOM</td>
<td>Central Command</td>
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<tr>
<td>CINC</td>
<td>Commander-in-Chief</td>
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<tr>
<td>CLIPPER</td>
<td>Pan Am Aircraft - Official Designation</td>
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<tr>
<td>CMMS</td>
<td>Congressionally Mandated Mobility Study - 1980</td>
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<tr>
<td>CNAC</td>
<td>China National Aviation Corporation</td>
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<td>CRAF</td>
<td>Civil Reserve Air Fleet</td>
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<tr>
<td>DOC</td>
<td>U.S Department of Commerce</td>
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<tr>
<td>DOD</td>
<td>U.S. Department of Defense</td>
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<tr>
<td>DOT</td>
<td>U.S. Department of Transportation</td>
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<tr>
<td>FAA</td>
<td>Federal Aviation Administration</td>
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<tr>
<td>FOIA</td>
<td>Freedom of Information Act</td>
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<tr>
<td>GAO</td>
<td>General Accounting Office</td>
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<tr>
<td>GDSS</td>
<td>Global decision Support System</td>
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<tr>
<td>HUMP</td>
<td>Flying over the Himalayas from India – China WW II</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>JCS</td>
<td>Joint Chiefs-of-Staff</td>
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<td>MAC</td>
<td>Military Air Command</td>
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<td>MATS</td>
<td>Military Air Transport Service</td>
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<tr>
<td>MEB</td>
<td>Marine Expeditionary Brigade</td>
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<tr>
<td>MRE</td>
<td>Meals Ready to Eat</td>
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<tr>
<td>MEU</td>
<td>Marine Expeditionary Unit</td>
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<tr>
<td>MTM/D</td>
<td>Million Ton Miles per Day</td>
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<tr>
<td>NATO</td>
<td>North Atlantic Treaty Organization</td>
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<td>NATS</td>
<td>Naval Air transport Service</td>
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<tr>
<td>NCO</td>
<td>Non-Commissioned Officer</td>
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<tr>
<td>NSRB</td>
<td>National Security Resources Board</td>
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<tr>
<td>NSDD</td>
<td>National Security Decision Directive</td>
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<tr>
<td>PAN AM – PAA</td>
<td>Pan American World Airways</td>
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<td>RAF</td>
<td>Royal (British) Air Force</td>
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<tr>
<td>RDF</td>
<td>Rapid Deployment Force</td>
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<tr>
<td>SCATDA</td>
<td>Acronym for South American Airline bought Pan Am 1931</td>
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<tr>
<td>SEATO</td>
<td>South East Asia Treaty Organization</td>
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<tr>
<td>SCUD</td>
<td>Russian made Surface-to-Air Missile</td>
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<tr>
<td>TWA</td>
<td>Trans World Airlines</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNSC</td>
<td>United Nations Security Council</td>
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<tr>
<td>UNSC RES</td>
<td>United Nations Security Council Resolution</td>
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<tr>
<td>USAF</td>
<td>United States Air Force</td>
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<tr>
<td>USTRANSCOM</td>
<td>U.S. Transportation Command</td>
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<tr>
<td>WOA</td>
<td>World Airways</td>
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<td>WW I</td>
<td>World War One</td>
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<td>WW II</td>
<td>World War Two</td>
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ABSTRACT

This dissertation is about the Civil Reserve Air Fleet (CRAF) and its role in the 1990-91 Persian Gulf War, with a special emphasis on the men and women who manned and operated the civilian aircraft. This is the first time the history of that war has been told from the standpoint of the CRAF and its crew members. Relying heavily on interviews – firsthand accounts – with the crew members who participated, and to primary and secondary sources, the historical context is recreated in which the events unfolded. Instead, however, of following the history from the political, diplomatic, and military perspectives, we approach it from the perspective of the nation’s civil air carriers and through the words of its civilian crew members. We begin with a description of ‘airlift’ and the responsibilities of commercial aviation to the nation’s defense and security through the National Airlift Policy. The history of commercial aviation and its relationship with the U.S military began just before the outbreak of WW II, and continued through the Berlin Crisis of 1948-49, the Korean War, and the War in Vietnam. That relationship led to the creation of the Civil Reserve Air Fleet (CRAF). Activated for the first time in its 38 year history on August 17, 1990, the CRAF played a major role in the Persian Gulf War. Over 5000 CRAF flights operated into the war theater from August of 1990 through May of 1991. The war could not have been won by the United States and its coalition partners – within the timeframe dictated by events – without the active participation of the CRAF. The CRAF could not have fulfilled its commitments to the nation without the voluntary participation of its crew members. The civilian crew members responded overwhelmingly to the nation’s call. They served with enthusiasm, commitment, and determination. Over 11,000 civilian crew members participated in those events. Their story is told here for the first time. This dissertation fills a significant historical omission; and adds to the history of America’s first major military involvement in the Middle East.
CHAPTER ONE
THE CIVILIAN RESERVE AIR FLEET

In every conflict since World War II the American military has relied on aircraft to move its
Troops and cargo, but it’s never had enough of its own planes to do the job. In 1951, President
Truman signed an executive order that created the Civil Reserve Air Fleet, or CRAF. It’s an
arrangement that allows the Pentagon to call on commercial aircraft to help boost the
Military’s airlift capability while keeping its costs down...Jackie Northam NPR

Introduction

In August of 1990, as Iraqi troops were consolidating their sweep through Kuwait, they began
massing along the border of Saudi Arabia. Intelligence sources determined they were poised to
attack. The United States’ response was swift. Within days the U.S. began a major deployment
of troops and material to Saudi Arabia to thwart a possible Iraqi invasion. Within two weeks –
August 17, 1990 – the U.S. government called on the nation’s airlines to support the airlift into
the Arabian Peninsula. In just four months the U.S. would switch from a defensive strategy to
an offensive one; from one of defending the Saudis, to one of expelling the Iraqis from Kuwait.

On January 17, 1991, in support of its new strategy the Department of Defense (DOD) increased
its demand for additional aviation assets from the nation’s airlines to prepare for the invasion of
Kuwait. The war to oust the Iraqi occupiers of Kuwait had begun. It marked the first time in
history that large scale U.S. forces were deployed and engaged in combat in the Middle East. As
early as September, the chairman of the Joint Chiefs of Staff (JCS) Gen. Colin Powell
commented: “the buildup was starting to reach mammoth proportions.”

The events would dominate the worldwide media for the better part of seven months. The Press coverage of
the conflict was the most comprehensive and widespread of any previous war. The events leading up
to the war, its execution, and its aftermath, spawned an abundance of historical narratives,

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4 Ibid., xvii.
literary analysis, and a stream of memoirs. Yet in spite of the saturation of coverage and its literary aftermath, there still remained significant historical omissions. Few outside of official sources were aware for example, that U.S. commercial aviation carried over 60% of U.S. troops and 25% of military supplies into the war theater. On the redeployment or return to the states, U.S. airlines carried over 80% of all troops and 40% of the military’s cargo. The introduction of civil aviation into the conflict was no accident, but rather, a part of the nation’s defense strategy to deal with war and national emergencies.

The history of commercial aviation’s role in our nation’s wars is long, and complex, and has at times been contentious. This war however brought a new chapter to the military-commercial airline partnership. The role of commercial aviation in our nation’s defense strategy rose gradually from logistical asset to strategic partnership. This new role has completely bypassed the cognizance of the public, the press, and academia. The evolution of this strategy and the contributions of commercial aviation to the war are what concern us here. Equally important to us, is the role civilian crew members played in the operation’s success. Indeed within the larger story the efforts and contributions of the airline crew members remain to be told. Although they remained for the most part, unacknowledged, their efforts were indispensable to the operation’s success.

The activation of U.S. commercial aviation came about through a voluntary, but little known program between the U.S. airlines and the Department of Defense known as the Civil Reserve Air Fleet, more commonly referred to by its acronym CRAF. It is a voluntary program in which U.S. airlines commit aircraft, crews, and other aviation assets to the nation’s service in times of national emergency. The call-up in August 1990 was the first time the Civil Reserve Air Fleet (CRAF) was activated in its thirty-eight year history. This activation would bring about the largest airlift – military or humanitarian – in history. The Persian Gulf War of 1990-91, and the activation of the CRAF form the context in which our dissertation unfolds. As a major part of our nation’s defense strategy, the CRAF program is largely dependent on its civilian crew members.

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7 Ibid., 80.
8 Matthews & Holt, So Many, So Much, So Far, So Fast, 12.
These civilian crew members underpin all of the contributions and successes of the CRAF’s first and subsequent activations. You will find no mention of them in any of the official publications on CRAF. You will find very little about them in the Press during and after the 1990-91 Gulf War; and the abundant literary sources on the war, all but ignores them. This dissertation will end their anonymity and introduce some of them. Their contributions were more than significant, and should be made known outside military and aviation circles. The major role airline crew members played in the war effort forms the basis of a significant historical event that will be told here for the first time.

In this chapter, we will introduce our primary topic and the method used to build our argument. We will also discuss the value attached to our study or why this study is so important. Lastly we will discuss the literature and interview process which make up the major part of our source material.

The topic of this dissertation is on the civilian participation in the Persian Gulf War of 1990-91, Desert Shield/Desert Storm, and the pivotal role these individuals played in the war’s successful outcome. The scope of the civilian participation is limited to the commercial aviation crew members – pilots and flight attendants – and other airline personnel who flew missions into the theater of operation as part of the Civil Reserve Air Fleet (CRAF). By extension the whole CRAF program will come under examination, particularly its performance during this operation. The overwhelming military success of the U.S and its coalition partners over the Iraqi occupiers of Kuwait was attributable, in part, to the CRAF participation. The CRAF was a crucial partner to the U.S military. Since this was the first time in its thirty-eight year history that CRAF was activated, many questions beg to be answered, not the least of which is why the CRAF was never activated during previous wars. What was so unique about this war which resulted in the CRAF’s first activation? More important however, is the question of how the untested CRAF operation involving thousands of flights and even more crew members, was pulled off without any major glitches. What makes this material even more interesting is that most people in general, and many of the airline individuals under examination here, in particular, were not aware of the existence of the CRAF program, and much less prepared for its activation. Not aware, and even less prepared for a war-time operation, these civilian crew members achieved a nearly flawless

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9 Mathews & Holt, 37.
10 U.S. House of Representatives Reauthorization Act. 73., and Matthews & Holt. 79, 80.
operational record and played a major part in the war’s successful outcome. It is an amazing story to this day, and must be told. We will attempt to profile the individuals and tell why they were so successful. It is important at the outset to understand that our subjects were not a small coterie of specially trained individuals whose sole purpose was to execute a special but limited operation. They were in fact a rather large and diverse group of people, numbering in the thousands, who routinely went about their job i.e. their routine civilian occupations, but rather in a military environment and under wartime conditions. They were and are, for that matter, the same pilots and flight attendants you see boarding and working on our nation’s commercial airline flights at every major airport, every day of the week. In the process they also chalked up some historic firsts, such as: carried out the largest airlift in history and the distinction of having carried more U.S. troops into battle than the U.S. military. This airlift – Desert Shield/Desert Storm – was larger than the Korean, Vietnam, and Berlin airlifts. That is what makes their accomplishments so phenomenal and motivates us to investigate this topic and tell their story.

If the civilian element i.e. the CRAF and its crew were removed from the war-equation there would have unquestionably been a different outcome: very possibly not a successful one. Without CRAF and the civilians who manned and flew the aircraft, Desert Shield would not have succeeded; and Desert Storm, more than likely, would not have been attempted. Thus our argument, which will be more fully developed in its place, is that the success or victory of Desert Shield/Desert Storm would not have come about without the participation of Civil Reserve Air Fleet. By extension, and one would assume logically, it was the civilians who manned and operated the commercial aircraft that made the difference. Yet the sources on both the war and the CRAF program within this operation do not give any credit to these individuals, much less even mention them. Since they were not sufficiently acknowledged in any way, we will attempt to focus on them as being largely responsible for the overwhelming success of the CRAF operation and by extension acknowledge their special contribution to the nation’s defense. Our argument has two basic components: The first attempts to prove that without the CRAF operation both Desert Shield and Desert Storm would not have succeeded. The second attributes the success of CRAF to the individual civilian crew members, who without any special (wartime) training, successfully executed a major and essential wartime operation. Success in

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11 Matthews & Holt, So Many, So Much, So Far, So Fast, 48, 79.
12 Ibid., 12., and U.S. House of Representatives Reauthorization Act. 78
any war is attributed to the many and various elements that come together in a unified and coordinated way. Unified command and control, along with land, sea, and air elements, supported by a fully organized logistical supply chain make all the difference in the outcome. If one element fails, the effort is weakened and the outcome is threatened. In this conflict the role of civil aviation was much more than an equal component. Without civil aviation’s part the vast majority of troops would still have been idling stateside after the hostilities began. Since this war was framed within time constraints – as we shall see – no other delivery system could have had the troops in place, in time. Even more critical was the fact that the vast majority of civilian crew members were volunteers (and continue to be so within the CRAF program) which magnifies their role and achievements within the CRAF operation in this war. The Civil Reserve Air Fleet is part of the United States’ overall military strategy, and has been for over fifty-years. Before that, U.S. commercial aviation was always factored into U.S military planning since before the outbreak of WW II.

**Importance of This Study**

Telling the story of CRAF through the individual participant’s perspective has several valuable benefits. The first is to fill in the missing history i.e. to help complete the history. So we will be taking an approach not previously employed in the study of this war, and that is to focus on the individual civilians who flew the missions into and out of the war zone before, during, and after hostilities. Considering the major role played by civilians in this war and their contributions toward its successful outcome, a major omission in the history of this war exists. Thus an important goal of this dissertation is to fill the historical omission. The second is to enlighten the public on the essential role U.S. airlines play in national defense, and at times of national emergencies. Civil aviation, since its inception, has played a major role in the nation’s defense. Their participation is well documented in all of the nation’s wars from WW II, Korea, and Vietnam through the Gulf Wars right to the present day. We will examine civil aviation’s role in all of these conflicts in order to demonstrate the depth and longevity of the civil-military aviation relationship. The contributions of U.S commercial aviation to our national defense very likely exceeds comparable support given by most other sectors of the U.S. civil economy. More importantly and for our purposes, U.S. civil aviation involves more U.S civilians in proximity to

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13 U.S. House of Representatives, Reauthorization Act. 75.
the war theater and more intimately with the frontlines troops than any other industry. In most cases, the last civilian contact combat troops have with the folks back home before hostilities; and the first contact after hostilities, is with a commercial airline crew member. Most of this support is voluntary, and for the most part has surpassed needs. For an industry that is often lambasted by the press and bears blame for things beyond its control, release of this information could possibly improve the industry’s image. For the thousands of crew members – pilots, flight attendants and support personnel who volunteered for these missions without any special compensation or recognition, telling their story and acknowledging their contributions will assuredly keep the spirit of volunteerism and support alive; and will help to insure the continuance of this voluntary but essential program. The lack of recognition was the single largest disappointment of the crew members interviewed for this project. Thus the value of telling this story far exceeds academic considerations. The airlines through its crew members serve as a link – the last link - between the anxious soldiers facing unforeseen dangers and the civilians they protect. Suffice to say that this psychological bond, and morale booster, has a positive effect on both the soldiers and crew members. Telling their story will support the continuance of this positive effect. The public should be made aware of the contributions of civil aviation in supporting our troops and furthering the national interest which far exceeds any contractual obligations between the parties.

**Methodology**

The method used in this dissertation to establish a cohesive whole, is to begin with a thorough examination of the Civilian Reserve Air Fleet (Chapter Two) in order to understand the role the CRAF plays in U.S. national defense policy. The answers to the questions: What is the CRAF? How does it work and why it is an integral part U.S. military strategy will be answered in turn. The background, structure, and history of CRAF places the program in its overall strategic setting, and lays out the development of civil aviation in its partnership with the U.S. military from its inception to the creation of the CRAF program. Chapter two also includes a case study focused on Pan American Airway in the Pacific Theater of WW II. By focusing on one airline, in one particular theatre of war, we are able to grasp the depth and importance of civil airlift during war. In this case we will see how the government can use an airline, in surrogate manner to achieve its strategic ends. An air carrier’s versatility is also clearly demonstrated in our scenario. But the dangers involved in these civil-military arrangements
became obvious and have implications and relevance for us today. We will also see how civil aviation can become targets for the enemy and understand why that applies to today’s CRAF carriers ferrying troop and military cargo to the front. Pan Am was chosen for three reasons: The first is the abundance of both primary and secondary sources which are readily available. The second reason is the depth of Pan Am’s involvement in the several phases of operations, which include working closely with the government before the war in the areas of defense and national security. The third reason was the unique position Pan Am enjoyed as being the only U.S air carrier, for that matter, the only carrier in the world, spanning the Pacific Ocean at the time. There was also the matter of Pan Am’s involvement in hostilities three year before the United States was formally at war with Japan. The purpose of the case study is not only to demonstrate the capabilities of civil air carriers during war, but show just how necessary they were and are when fighting across oceans and continents. The study also allow us to introduce some civilian airline employees whose expertise and involvement indeed reached the level of heroic, and illustrate the importance of their experience, professionalism, and dedication to their job. It would all become part of the foundation upon which the Civil Reserve Air Fleet was conceived and built. The military was not reaching into the unknown when it decided to establish a formal relationship with the nation’s civil air carriers. Pan Am’s accomplishments and achievements in the Pacific during WW II are more than enough to warrant a major study, but for us the case study is sufficient. Chapter three will continue with the history and background of the CRAF beginning with the Berlin Airlift and continuing to the 1990s. As the CRAF grew from a ‘paper entity’ to a fully operational asset, its evolution from conception to maturity, including its trials and tribulations, will be highlighted. The chapter also includes a more detailed overview of the concept of ‘airlift’ and an introduction to the National Airlift policy.

Chapter four deals with the chronological-narrative of events leading up to the CRAF activation, in order to create the historical context in which the CRAF was activated for the first time. This involved describing the circumstances behind the Iraqi invasion of Kuwait in the summer of 1990, and the historic events that resulted from it. The response to Iraqi aggression set in motion military and diplomatic initiatives based on intelligence analysis, and a real or perceived economic crisis of world-wide proportions. The threat of disruption to the supply of the world’s oil reserves flowing to the U.S and its allies in Europe and Asia became a real
The aggressive nature of the Iraqi leader, Saddam Hussein who threatened to destabilize the peace and security of the region, also became a factor. Moreover the posture of the Iraqi army indicated to intelligence agencies that an attack on Saudi Arabia, and possibly the United Arab Emirates, was imminent. The world-wide diplomatic efforts to build a coalition of nations to oppose the Iraqi aggression gave rise within the Bush White House to a sense of urgency based on the perception that some nations among the coalition lacked true commitment and resolve to follow through. These circumstances created a sense of urgency, and put pressure on the United States, as unchallenged world leader, to take swift and decisive action. A combination of three factors arose, which hitherto had not previously existed simultaneously in any prior crisis since the inception of CRAF in 1951. They were as follows: the time factor or urgency to move a sufficient number of troops and equipment into place to stem the threat of further Iraqi aggression and to protect the Saudi Arabian oil fields. The second factor was distance. The minimum distance from the continental United States to the Saudi Peninsula was more than seven thousand miles. U.S. troops positioned on the east coast of the United States would have to travel that minimum distance. Obviously troops from other parts of the U.S. mainland would have to travel much farther. The third and final factor was a lack of resources on the part of the U.S. military to move into place the forces necessary to block an imminent Iraqi invasion. This last factor was exacerbated by the lack of any prepositioned U.S. forces in the region, as the United States routinely maintained in Europe and in the Pacific. In addition, the time factor or urgency to position troops had two segments: the initial troop buildup to inhibit an Iraqi takeover of the Saudi Arabian Peninsula (Desert Shield), and a second buildup of sufficient military force to dislodge Iraqi troops from Kuwait (Desert Storm) by the deadline imposed by UN Security Council Resolution 678. This Resolution authorized the use of force to expel the Iraqis from Kuwait, “by whatever means necessary.” Equally important, was the fact that the U.S. military did not have the lift or capacity to move sufficient troops and material into the theater to thwart a threatened Iraqi invasion of Saudi Arabian, or to dislodge Iraqi forces from Kuwait as was authorized by the UN Resolution. This alone is a very revealing fact. If the DOD did not have sufficient lift to accomplish its mission, does it mean to say they were unprepared,

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15 Yetiv, 12., and Schwarzkopf. 346., 363.
or that the airlines were factored into the defense strategy from the beginning in order to provide the lift? The response to that question will be explored later. Suffice it to say that it was these factors: time, distance, and lift running concurrently, as we shall see, that necessitated the historical activation of the Civil Reserve Air Fleet. Understanding that CRAF was not activated in previous wars allows us to understand those unique circumstances leading to the very first CRAF activation. This sets the stage for the unfolding of events which led to CRAF’s participation in the Gulf War, and the pivotal role the individual crew members played in that experience.

Chapter Five is straightforward, in that it deals with the performance of the CRAF during the buildup (Desert Shield), the war, (Desert Storm), and the redeployment to the United States of men and materiel. In short, it discusses the statistical achievements and accomplishments of the CRAF’s performance in its very first activation. This chapter will provide us with a synoptic view of the profound nature of a civil aviation’s contributions in war and the areas of national security. It will make clear the awesome capabilities of civil airlift and highlight for us the importance of the individuals who make it happen. The information contained in this chapter is not common knowledge and in addition to furthering our narrative it will also serve to inform the public of the importance and necessity of civil airlift.

Chapter Six introduces the individual crew members which is our focal point. Here we endeavor to get their story out within the overall framework of events then taking place. Their role will be generalized at first and then individualized through selected firsthand accounts provided primarily through the interview process. You will hear in their own words – for the first time – what took place during their trips into and out of the desert. They will discuss their personal feelings and their interaction with the men and women of the U.S. military. The interviewees and two written accounts are all from one CRAF air carrier, Pan American World Airways, which was the second most productive carrier during the operation. These accounts form the basis of the first history of the war told from the perspective of the civilian crew members who participated. Their stories will coalesce with the previous chapter’s discussion of the CRAF’s accomplishments and achievements.

The final chapter (Chapter Seven) steps out of context in order to draw some comparisons to the events described by our crew members in Chapter Six. By the time of the second CRAF activation took place in February 2003, to support Operation Iraqi Freedom, the Press was more
attuned to the depth of the civil airlines participation in the nation’s wars and the critical role played by the airlines crew members. In order to corroborate our initial interviews with the crew members from the CRAF’s first activation in 1990-91, and the conclusion we drew, we will examined six newspaper accounts highlighting crew members, who served in the second CRAF activation twelve and half years later (February 2003). These crew members represented three major U.S. air carriers: American, United, and Delta Air Lines. By comparing these accounts, we were able to test our findings and evaluate the changes and continuities. Equally and importantly, we will demonstrate how the experience affected the individual crew members. Chapter Seven ends our dissertation with summary and concluding comments.

The Sources

The sources are broken down into two principal groupings: written and interviews. The written includes both primary and secondary sources while the interviews are all primary in nature*. The bulk of the source material falls under the literature, but the interviews carry slightly more weight. The reason for this “anomaly” is that no literature – primary or secondary – is available on the primary focus of this dissertation which is the role of the individual civilian crew member. In fact, based on the interviews, where there is no pre-existing literature, the literature will be created here. While there are many primary sources on the Civilian Reserve Air Fleet and the role it played in the Persian Gulf War 1990-91, strange as it may seem, none of it focuses on the individual(s) who manned and operated the commercial aircraft. As for the CRAF specific literature: most of the available literature and studies on Civil Reserve Air Fleet were commissioned and/or sponsored by the U.S. Government and deal exclusively with the CRAF’s statistical achievements and the technical - structural aspect of the CRAF program and operation. The information provided by these sources is important and essential to any proper study of the CRAF; but does not suffice to give a full accounting of the CRAF’s first historical activation.

Much of the secondary literature deals with the contextual framework in which the Civil Reserve Air Fleet was activated for the first time in its forty-eight year history, and that includes the pre-existing situation leading up to the war; its causes, and the diplomatic, political, and military maneuvering that set up the conditions leading to the CRAF’s activation. The role U.S.

* The primary target of Interviews was the civilians who flew CRAF missions into the Persian Gulf during Desert Shield/Desert Storm, and those who participated in the political and diplomatic events described. They are all firsthand accounts.
Intelligence played is also important since many early decisions were based on Intelligence analysis. Both primary and secondary literature shed light on this aspect. The primary literature underpinning the above includes first-hand accounts presented in several autobiographies and memoirs including those of Dick Cheney, Secretary of Defense, Colin Powell, Chairman of the Joint Chiefs-of-Staff (JCS), H. Norman Schwarzkopf, Commander in Chief Central Command (CENTCOM), and Richard N. Haass, Special Assistant to both Presidents Bush, Jr. and Sr. There are also two important interviews which deal exclusively with the contextual framework: that of Thomas R. Pickering who, at the time was the U.S. Ambassador to the United Nations, and the interview with Chas W. Freeman who was then U.S. Ambassador to Saudi Arabia and who was present at the August 6, 1990 meeting in Jeddah with Dick Cheney, Bob Gates, General Schwarzkopf and King Fahd. It was at this meeting that the Saudis gave the unprecedented consent to allow a major and open-ended influx of non-Muslim troops into the Saudi Kingdom initiating Desert Shield.17

Another significant source of both primary and secondary literature was acquired through the Freedom of Information Act (FOIA). A total of five initial requests went out to various branches of the military and government agencies. The FOIA procedure is filled with promise but light on results. Government agencies and the military are more practiced in writing letters of apology than in producing results. Many classified documents are bundled with unclassified ones and anything that includes names, serial or social security numbers are unavailable because of privacy conventions. In spite of several denials for material and subsequent unproductive appeals, I was happy to receive over three hundred pages of material from Scott Air Force Base in Illinois. Scott is the headquarters for the Air Mobility Command (AMC) which is responsible for managing the Craf operation. About three-quarters of the material, however, were copies of two government publications on Craf which had been in my possession for some time and which I did not request and did not need. The remainder of the material did however deal with some important material including the number and types of military awards - broken down by air carriers – given to the individual civilian participants. A more successful excursion was to Maxwell Air Force Base in Alabama where the U.S. Air Force maintains its historical archives and Research Agency, in addition to the Air University. The staff was helpful and able to breakout unclassified material from the documents requested and redacted others. The material

17 Schwarzkopf, *It Doesn’t Take a Hero*, 352-355
included several reports on Craf and a period history (July-Dec 1990) of the 436th Airlift Wing which documented the ‘historical’ airlift of the 2nd Marine Division from Cherry Point Marine Corps Air Station, in which the Craf played a major role. There was also material on Craf dated in the 1970s that added to our background information. One helpful work was entitled “Craf Impact Study Report” dated May 6, 1991 which was full of pertinent data on the Craf operation during the war. Other material on Craf came from online access to government sources e.g. a number of research papers on Craf from graduate students at the Air University (Maxwell AFB), Government Accounting Office (GAO) reports and analysis, supplemented by the minutes from congressional hearings and other official reports. These reports gave us a post analytical perspective on the Craf operation. The point here, which should be reiterated, is that none of this material included anything about the individual civilian crew members – an important focus for us – who participated in Craf. However this material makes clear the overwhelming success of the operation and its essential role in the positive outcome of the war. In this sense the material garnered directly from the military and official sources corroborate the arguments that the Craf – in its first activation – was executed nearly flawlessly and did in fact greatly contribute to the victory.

The interviews with the participants in the events described herein have thus far produced result in excess of expectations. The interviewees were more than eager to share their experiences and were happy to answer – in-depth – all of the questions provided. They were also asked to provide personal anecdotal accounts which have provided a wealth of information vis-à-vis the interviewee’s emotional, and personal commitment to carrying out these volunteer missions. Those accounts are all published here. The problem has been in finding willing participants. Many of the major airlines which participated in this operation are no longer in business, including the three top passenger (troop) carries: Pan Am, Northwest, and American Trans Air. Finding their former employees has been problematic. World Airways (WOA), a non-scheduled airline that specializes in carriage of troops and government contract work, was more than accommodating. In spite of their best intentions however only one interview was netted from that source. The importance of the interviewing process remains paramount in that it is

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through the interviews that the literature on civil crew participation will be created. Other than crew member interviews, there were two with diplomats who were involved in the events. The interview with former UN ambassador Thomas R. Pickering was particularly informative as to what went on among the world’s community (UN) at the outset and throughout the crisis. Ambassador Pickering was instrumental in driving through many of the UN resolutions passed by the Security Council in response to the Iraqi aggression. The interview with the American ambassador to Saudi Arabia Chas Freeman not only produced a firsthand account of the August 6, 1990 meeting in Jeddah* between King Fahd and his royal advisors, and Dick Cheney U.S. Secretary of Defense and his team of commanding generals, but also sheds light on the mood among the Saudi religious community to the presence of foreign troops on their soil. As we will see the religious ‘mood’ among the Saudis was reflective of just how touchy the locals were about American military presence in the kingdom. The topic was another factor creating a sense of urgency to bring this crisis to a speedy conclusion. These interviews were important and not only served to support and supplement the contextual aspect of the paper, but to provide important information that supported the urgency of the buildup vis-à-vis the time factor discussed above. Both ambassadors were well acquainted with CRAF’s participation and contributions to the war but had no interaction whatsoever with the operation and could not provide any additional information on the CRAF. The insight they provided did assist in setting up the context and conditions in which the Civil Reserve Air Fleet was first activated. The Persian Gulf War of 1990-91, Desert Shield/Desert Storm, the events leading to war, and the political, diplomatic, and military responses to Saddam Hussein’s invasion of Kuwait will form the context and frame our exposition of the CRAF activation and its achievements.

**Getting to War, Ships and the Merchant Fleet**

When the United States contemplates going to war, it’s thinking of far off places. Americans have not suffered the scourges of war on their homeland since the Civil War and before that the War of 1812. For the last century, and the first part of the present one, Americans have fought their share of wars; fortunately, they have all been on foreign soil. Political alliances and international politics resulting from WW II caused the United States to extend its security frontiers to both the European continent and the Pacific Rim, thus pushing its outer defenses far

*The August 6th meeting took place in Jeddah on the Red Sea not in Riyadh, the Saudi capital as some have reported.*
beyond the borders of the continental United States. Since the end of WW II, American troops have always been stationed overseas to protect the interest of the United States and its allies. The positioning of troops on foreign soil is known as “forward presence,” whose primary purpose was/is to act as a deterrent to aggression, and in the worst case scenario, to slow down an enemy attack until sufficient forces could be moved into place. For the better part of 45 years following World War II, the Soviet Union filled the role of the aggressor. And indeed, the forward presence of U.S. troops on European soil, around which NATO built its defenses, was successful in deterring further Soviet expansion. There were in addition several hot spots around the world in which, for one reason or another, no U.S. troops were stationed. The Middle East is a prime example. Thus U.S. strategic and contingency planning gave a high priority to the transportation of troops from the homeland to the many potential war-fronts, whether to augment the existing presence as in Europe and Asia or to deploy a full force as required elsewhere.

Moving troops and materials to the front is a major undertaking, and the facilities and infrastructure to carry America’s war machine to far off places is an important part of America’s strategic policy. In WWI transportation from the continental United States to the front was exclusively relegated to ships. Ships are slow, present large targets to an enemy, and do not necessarily bring the troops to the front. During WW II, between 1942 and May 1945, merchant ships carried in their bottoms in excess of 5 million troops across the ocean.\textsuperscript{19} Three Cunard ocean liners: the Aquitania, the Queen Mary, and the Queen Elizabeth were refitted and carried one million of that total. But these great liners did not present their “guests” with the standard fare i.e. they did not provide the normal amenities expected of luxury liners, except perhaps for the officers.\textsuperscript{20} Twenty-seven hundred of the merchant ships built during the war were Liberty Ships. The Liberty Ships were primarily freighters and but could carry up to 550 troops. Working 24 hours a day, shipyards could turn out a Liberty Ship in 42 days from prefabricated components. Over 200 Liberty Ships were lost to enemy action during the war. The idea was to turn them out “faster than the enemy could sink them.” Top speed for a fully loaded Liberty Ship was 11 knots.\textsuperscript{21} In one month alone, June 1940, before America entered the war, the Cunard Lines lost three ocean liners. One, the Lancastria, was sunk by German Stukas dive-bombers.

\textsuperscript{20} Ibid.
\textsuperscript{21} Pete, Peterson ed., \textit{They Couldn’t Have Won The War Without Us!: Stories of the Merchant Marine in WW II Told by the Men who Sailed the Ships}, (Galena Ill: Lead Mine Press, 1995), 8, 9.
and 4,000 of the 6,000 men on board were lost.\footnote{Satchell, \textit{Running the Gauntlet}, 46-47.} For the merchant seamen Crossing the Atlantic from 1942-1945, became known as “running the gauntlet.” The dangers were real and should not be forgotten when discussing passenger airliners carrying troops off to war.

It would not be until World War II that airlift was used to any great extent. Shipping still carried the major share of troops across both the Atlantic and Pacific oceans. The aircraft of the time were much slower and had much less range and capacity in comparison to today modern airliners. Aircraft were relegated to carrying mostly cargo or special troops and certain high ranking individuals. But aircraft were much more versatile and could go where ship could not. They were faster, could fly around danger, and in many cases, could get very close to the front. Airlift was able to make the difference in some major theaters in WW II, such as the China, Burma, India (CBI) Theater (see chapter two), where daring pilots flew supplies over the “Hump” i.e. over the Himalayas from India to China. Since shipping played the major role, airlift was able to play a supporting role and fill in the gaps in the world-wide logistical chain. The difference however was instrumental and may have tipped the balance against two of history’s greatest military war machines – the Nazis’ \textit{Wehrmacht} and the Imperial Forces of Japan. Interestingly the Nazis did not have sufficient sea transports to cross the English Channel to invade England. The delay in invading England cost them the war. German air power was awesome, but lacked the depth of air transports then available to the United States. The same might be said of Japan. The majority of airlift assets that made significant contributions to the war did not come from the military, but from the civil sector of American aviation – the airline industry. Although both Germany and Japan had formidable fighter and bomber aircraft, they lacked the comparable civil aviation sector of the Americans. World War II saw the first use of U.S. commercial aircraft in support of the military, and would not be the last.

After World War II, America left a military presence in Europe and Asia to help rebuild and rehabilitated those lands devastated and ravaged by war. Part of that program was to ensure that democratic institutions would prevail and those responsible for the war would not return to power. It was not long into the post-war period however, that America’s most recent alley, the Soviet Union, began to demonstrate signs of hostility and an active desire to bring occupied territory under its hegemony and ideological system – which were a far cry from democratic. Thus the Cold War began and American strategy would change - in both hemispheres – to one of
containment and defense against a Soviet invasion. The North Atlantic Treaty Organization (NATO) was established in Europe and later SEATO, South East Asia Treaty organization, would bring U.S allies together in a defensive alliance in Asia. The strategy of the U.S. and its allies - containment and defense – required a ‘forward presence’ of a substantial number of U.S. troops. The occupation forces would form the nucleus of a new long-term presence of U.S troops in the region. Their primary responsibility however was to present a holding or delaying action, until the Americans could bring over sufficient forces to defeat the aggressor. Thus transportation to affect the deployment of men and materiel to a war front, took on major importance in American strategic planning. When the Soviet forces began to expand to overwhelming numbers the need for more rapid and sustaining transportation was required. This need coincided with the development of jet aircraft, faster, with longer range, and with increased lift and capacity.

By the late 1980s the Soviet Union was coming apart, and by 1990 the Soviet threat to Western Europe was greatly diminished. But as fate would have it, the Middle East began heating up. The Iraqi leader, Saddam Hussein, began pushing his weight around in a manner – as we will see – that threaten the stability of the region. If the need arose to send U.S troops to the Middle East, a full-blown deployment would have to be executed. Indeed this is just what happened. It was to airlift that the U.S. government began looking to fill its transportation needs. This dissertation is about the civil component of that airlift and to those civilians who made it happen. We begin with the history and background of the civil-military aviation relationship and how that relationship developed into the formal structure known as the Civil Reserve Air Fleet.
CHAPTER TWO

HISTORY AND BACKGROUND

For the first time in the history of warfare, the airplane became an integral part of military supply lines – and in some instances, the only supply line. It didn’t win the war, yet the war couldn’t have been won without it. Airlift almost single-handedly kept China from collapsing, helped prevent Rommel from overrunning North Africa, and on more than one occasion provided the thin margin that spelled victory instead of defeat. It also saved lives; one out of every five American servicemen wounded in WW II was airlifted back to the United States for extended medical treatment. Robert J. Serling

This chapter deals with the history and background of civil aviation and its partnership with the U.S. military. The focus is on WW II and includes a case study of one air-carrier during that conflict. The partnership between civil aviation and the military dates back to pre-World War II planning, and culminated in the present day Civil Reserve Air Fleet. It was a long and difficult relationship, but one in which both parties have greatly benefited. The greatest beneficiary however, has been our nation. Over the years commercial air carriers have borne a fair share of our nation’s crisis and wars. When the need arose, America’s commercial air carriers have always been in the forefront of volunteering their assets. On the other hand, government support and peacetime contracts have greatly benefitted the air carriers.

Airlift

Understanding the history and background leading up to the creation of CRAF, is nothing more than an examination of the joint history of U.S. Civil Aviation and U.S. Military history from a different, albeit, narrower perspective. That narrower perspective focuses on airlift. Airlift is a self-descriptive term, and disappointingly only triggers one significant historical event, the Berlin Airlift, which is discussed in Chapter 3. The reason that ‘airlift’ does not conjure up any great recollections of and by itself, is because ‘airlift’ is subsumed under ‘air-power.’ Airlift is indeed part and parcel of air-power, but we are not concerned here with ‘air-power’ as it is commonly understood i.e. as the most efficient delivery system of death, destruction, and

interdiction during war. Airlift, for our purposes, is the most efficient system of delivering troops and materiel to the war front. On the other hand, airlift can and often does deliver humanitarian aid to where it is needed most. Certainly ‘airlift’ is more familiar in the commercial sense, in the delivery or transportation of goods and people. Airlift is what the airlines do for business. For the military airlift plays a supporting, but critical role in helping it to do its business. In a recently released work by Col. John Plating, a professor of History at the Air Forces Academy, he makes the comparison between the military and commercial airlift for us:

"Among the different forms of airpower, air transport [airlift] is unique because it has a nonmilitary parallel in the form of commercial aviation. In fact, within the context of a market economy, the commercial side of air transport before the war operated on a larger scale and with more efficiency and expertise than its military cousin."²⁴

The commercial aspect of airlift came of age during the interlude between the world wars; and U.S. military planners saw the advantages of ‘airlift’ long before the outbreak of WW II. It is important, for our purposes, to understand that airlift is not just a concept. It is a plan which supports U.S. military policy. That policy encompasses military and commercial aviation working jointly to achieve certain predefined goals. When civil aviation is called on to support the military, its role could be separate, overlapping, or complimentary to the military’s. But it will always function under the same command, and operate in the same integrated environment, as the military.

In the mid-1940s, the commander of the Army-Air Corps H. “Hap” Arnold set a post-war airlift goal to move “one Army Corps anywhere in the world within 72 hours.” By 1956 the goal was upped to moving “two infantry divisions anywhere in the world within 28 days.”²⁵ A decade later, during the 1960s, while the Cold War with Soviet Union was in high gear, the focus of airlift policy was shifted to support the North Atlantic Treaty Organization (NATO). The airlift goal, known as baseline, was upped accordingly to move “seven divisions and twenty three tactical fighter wings from the U.S. to Europe within 10 days.”²⁶ Each increment reflected the baseline number of required troops to meet a contingency. Thus the baseline number of required troops and equipment to be moved in a crisis situation remained the underlying factor in

determining airlift requirements. By the beginning of the 1980s the planning became more precise and sophisticated as the Congressionally Mandate Mobility Study (CMMS 1981) set the goal for the Military Air Transport Command (MAC) at 66 million tons miles per day (MTM/D).27 By this time the Civil Reserve Air Fleet was fully operational. All of these numerical requirements were predicated on the use of civil aviation assets in conjunction with the military’s organic transport fleet.28

By the late 1980s, the threat posed by the Soviet Union and its Eastern Bloc allies was disintegrating. As early as 1989 the new chairman of the Joint Chiefs of Staff (JCS) Colin Powell began planning and lobbying with the general staff to come up with a new national defense strategy in light of the momentous changes then taking place. The Cold War was coming to an end without a shot being fired between the two opposing protagonists. The new strategy was called the ‘Base Force’ and was predicated – for the most part - on regional conflicts throughout the Third World.29 The ‘Base Force’ was the minimum troops required to meet the nation’s needs. The idea that the United States was a first rate world power was based on its ability to project power anywhere at any time – when the occasion arose. The responsibility to project that power was in the hands of the Military Air Transport Command (MAC). With a reduced threat from the Soviet Union, major cuts in defense spending required troops stationed overseas, particularly in Germany and Western Europe, to be brought back to the United States. The Base Force was also defined as the minimum force (troop levels) necessary for the United States to remain a super power.30 The forces themselves would primarily be stationed stateside and be able to; “respond to contingencies…ready, flexible, mobile….”31 Having concluded the long and cumbersome process in getting the new defense strategy approved, Powell turned his focus to building the supporting infrastructure to sustain the Base Force concept; “without the ability to transport forces and support them far from their home bases…. (they) would be unable to perform their mission”32 In other words, the new defense strategy was entirely dependent on mobility i.e. air mobility or airlift. Going back to the original baseline number of troops to transport in the 1950s, and continuing through the progression of the 60s, 70s and 80s, the military has never

27 Owen, 5.  
28 Ibid., 6.  
30 Jaffe, *Development of the Base Force*, 12.  
31 Ibid., 17.  
32 Ibid., 44.
been close to having sufficient airlift available to transport the required numbers, and much less the capability to carry the required Base Force to any crisis areas. By augmenting the military fleet with commercial aircraft, however, the gap could be filled. The nation’s airlift policy is clear in that commercial aviation will make up the difference. As it turns out, the difference is the major share.

In an article for the Air Force Journal entitled *The Airlift System: A Primer*, Lt. Col. Robert Owens, professor of air power studies at the Air University, lists the four tenets of “Airlift Policy.” The first concerns us here, and that is: “the commercial airline fleet is the heart of the national airlift fleet.” The only time this tenet did not apply was in WWII, and that is because civil aviation was just coming of age and the United States was quite unprepared for the eventualities that followed. As we will see below, however, commercial aviation did in fact become the “heart of the airlift fleet” in that war too, but only by default. The war cast the die and with the extent and successes of commercial aviation during WW II, the national airlift policy followed, largely dependent on civil aviation.

**The Beginning of a Relationship**

This formal relationship between the U.S. military and commercial aviation has its roots in the earliest days of aviation history following WWI. It owes its conception to an early aviator and West Point graduate by the name of Edgar Gorrell. Gorrell had the foresight to see the mutual benefits and advantages of a partnership between military and commercial aviation. In those austere days following WW I, military aviators were limited in their training and flying due to drastic cutbacks in government spending following the war. The routine flying of the Army Air Corps consisted of takeoffs and landings and staying within close proximity to the airfields. By the 1930s things hadn’t changed much on the military side, but by comparison, their civilian counterparts were making enormous progress. Commercial aviators then employed by new the airlines, were already flying cross-country scheduled passenger and mail service on a daily basis. There was no question that commercial aviation was way ahead of its military equivalent. The commercial side drove technological innovations in navigation, aircraft design, and all-weather flying. Commercial aviators were much more skilled and competent than their military counterparts in all aspects of aviation. The late 1920s and 1930s were the days of new upstart

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34 Ibid., 6.
airlines run by brash, egotistical, and aggressively competitive executives. These independently minded individuals saw to it that their airlines would succeed. Some of the more famous were Juan Trippe of Pan Am, Eddie Rickenbacker of Eastern Airlines, C.R. Smith of American Airlines, Pat Patterson of United, and Jack Frye of TWA; all icons of aviation history. Not surprisingly, in their competitive environment, there was no love lost between them. The relationship between these mavericks of aviation and the then sitting president, Franklin Delano Roosevelt (FDR), was strained over an airmail contract scandal. The scandal, fueled by partisan politics, is important for our purposes only because it made the airline executives realize the need for a trade organization to represent their interests in Washington.  

That trade organization would become the vehicle for Edgar Gorrell to make his entrance onto the stage of American aviation history. Gorrell was the man the airline executives chose to be the organization’s first president. A former colonel in the Army Air Corps, Gorrell resigned his commission in 1920 and joined the automotive industry and eventually rose to the presidency of Stutz Motor Cars. In 1934 Gorrell served on the Baker Board which was investigating the military’s poor performance and high mortality rate while flying the U.S. mail. He was assigned to write the board’s findings and recommendations. The report revealed Gorrell’s keen insights into aviation matters which attracted the attention of the airline executives. It was also during that period that Gorrell was able to re-establish his contacts in Washington. They included those he served with during Mexican campaign and in WW I. There were among them some early aviation luminaries such as Jimmy Doolittle, and H. “Hap” Arnold. Gorrell was an able and proven administrator, and just the type of person the airlines executives wanted to head up the newly formed Air Transport Association (ATA).* As a Washington insider, Gorrell also had the right contacts. The fact that he was short in stature and soft-spoken gave the airline executives the idea that he could be easily manipulated into doing their bidding. Gorrell became the ATA’s first president in 1936, and fortunately for posterity, the airline executives were wrong in their personal assessment of him.  

The winds of war were blowing hard in both Europe and the western Pacific in the late 1930s. One of the first things Gorrell went to work on as president of the ATA, was a program in which

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* The Air Transport Association (ATA) has recently changed its name to Airlines for America (A4A)  
37 Serling, 10-13.
U.S. air carriers would make their aircraft, crews, and maintenance facilities available to the government in case of war. It was more than an idea; it was a detailed plan. His first hurdle was to convince the independent and largely obstinate group of airline executives, of the value of the plan. It boiled down to: we draw up a mobilization plan now, maintain some control over our resources and thus avoid a full scale nationalization of all our assets under the War Powers Act.\textsuperscript{38} Before the war Gorrell’s mobilization plan was put to the test. The air carriers were called upon to fly ‘mercy missions’ from New York to Boston in response to the destruction caused by the devastating 1938 hurricane.\textsuperscript{39} New England had been virtually cut off from the rest of the country as flooding had washed away highways and rail lines. The airlines not only flew-in thousands of tons of supplies, but flew thousands of people out of the region.\textsuperscript{40} This was the first humanitarian mission the airlines participated in, and it clearly demonstrated the great potential of airlift during a crisis.\textsuperscript{41}

**World War II Airlift**

In 1940 cognizant of the threat posed by the rising militarism in Germany and Japan, Gorrell pressed the airlines executives to update the mobilization plan.\textsuperscript{42} This all took place before the United States’ entry into the war. As a matter-of-fact as early as September of 1939 immediately following the Nazi invasion of Poland, Gorrell phoned General George C. Marshall, the Army Chief of Staff, and is quoted as saying; “General, the airlines are ready” This was followed by a face-to-face meeting in which Gorrell laid out his detailed plan to Marshall.\textsuperscript{43} Several days after the Japanese attack on Pearl Harbor, Gorrell, through the good graces of H. “Hap” Arnold, managed to get an audience with FDR. Gorrell’s next hurdle was to convince a president, still hostile to the air carriers over the air mail scandal, of the value of his plan. When he was ushered into the president’s office, all of his hard work and planning appeared to have been in vain. The president had just signed an executive order calling for the full mobilization of the nation’s airlines. Gorrell showed his plan to the president, and so the story goes, FDR tore up the order.\textsuperscript{44}

\textsuperscript{38} Serling, 17.
\textsuperscript{39} Ibid.
\textsuperscript{40} Ibid.
\textsuperscript{41} Ibid., 18.
\textsuperscript{42} Ibid., 19.
\textsuperscript{44} Serling, 3.
Gorrell, a superb organizer, was gifted in his foresight on the awesome potential of aviation in war. He knew that the government had too few transports and that the aircraft manufacturing industry would be up to capacity in producing fighters and bombers. The airlines however had plenty of transports plus highly qualified and experienced crews, maintenance personnel and administrative support staff. The airlines were experienced and well-practiced in flying scheduled passenger and mail/cargo service, as well as maintaining route reliability. In essence, they knew how to run a successful air transport service. The airline executives weren’t standing idly-by all this time waiting for Gorrell to take the initiative. Many of them were getting involved in the war effort by offering their services to the government and asking what else they could do. Working together they drew up a joint memorandum in which they expressed “the fullest coordination by the airlines with the National Defense Program.” The ATA board did however authorize Gorrell to act as their sole representative in matters dealing with national defense. Gorrell was aware that if the government had nationalized the air carriers, as Roosevelt’s executive order called for, utter chaos would have ensued. Gorrell’s contribution not only benefitted the airlines but served both the military’s and the nation’s interest as well. Gorrell’s mobilization plan initially called for the airlines to support the domestic mobilization of the nation in preparation for the war. Even before the United States entered the war however, in the summer of 1941, Pan Am agreed to ferry aircraft for the British across the South Atlantic via South America and Africa. They established an additional transatlantic transport service in support of the military. That action enlarged the scope of the original domestic airlift support plan to one which included transoceanic flying. By the war’s end the United States military with its commercial aviation partners were flying around the world service. The two front-war enabled the United States to be the only nation to have this distinction. The success of civil aviation in WW II is a matter of historical record. The supply lines across the Atlantic and to a lesser extent the Pacific were largely supported by air, considering the heavy toll allied shipping paid to German U-boats on the North Atlantic. Lend-lease was also largely supported by

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45 Serling, *When the Airlines Went to War*, 20.
48 Ibid., 25.
commercial aviation and commercial aviation was responsible, as mentioned above, for a major portion of ferrying aircraft to the British.⁴⁹

Many of the airlines had working agreements with the government outside of Gorrell’s and the ATA’s plan. Jack Frye of TWA had previously agreed to turn five Stratoliners (first pressurized aircraft) over to the government in case of war. At the outbreak of war the U.S Army upped the ante and took additional Stratoliners and half of TWA’s DC-3s.⁵⁰ One airline in particular deserves special mention because it partnered with both the U.S War Department and Department of State before the war, primarily because of its extensive transpacific and transatlantic route structure, and massive building development program. There is much speculation that Pan American (Pan Am) was often acting as an agent of the U.S. Government (See Case Study below). We will not speculate further, but will present some facts. The U.S had been concerned about a possible attack by Germany on the Panama Canal. The War Department began focusing its attention on German interests in South America. Germany had made inroads into Latin America particularly in Colombia where the German national airline had a stake in the Colombian Air Carrier, Sociedad Colombo-Alemana de Transportes Aereos (SCADTA). The State Department expressed surprise, just before war broke out, to discover that Pan Am had acquired controlling interest in SCADTA as early as 1931. Juan Trippe was duly ordered to rid SCADTA of its German influence, including its president von Bauer, which he did.⁵¹ Pan Am also held a stake in CNAC (China National Aviation Corporation) which flew scheduled service for the Chinese Nationalist Government throughout China before and during the war. Many Pan Am personnel were involved in the running of that airline.⁵² With the interdiction of shipping across the North Atlantic by German U-boats during the war, the way in which lend-lease (aid to Russia and the British) was expedited, was by way of Latin America and Africa: Natal – Dakar. Pan Am was involved in building airfields, fuel storage depots, and other aviation facilities from Trinidad to Natal in Brazil and from Dakar (Senegal) across Africa. The building took place under the sponsorship of the War Department but was carefully disguised as a commercial venture. The primary consideration for constructing new airports and aviation facilities was

⁴⁹ Crackel, History of the Civil Reserve Air Fleet, 25.
⁵⁰ Serling, When the Airlines Went to War, 24.
⁵¹ Ibid., 31-33.
‘military use’ and Pan Am gave it a commercial cover. In the mid-1930s under the auspices of the U.S. Navy, Pan Am built airfields at Midway and Wake Islands in order not to draw the suspicions of the Japanese. Pan Am was able to accomplish all this because of its geographically strategic positioning. Since the late 1930s Pan Am was flying scheduled service on the Atlantic and the Pacific including China, and down the east coast of South America. A large part of the Pan Am’s fleet, which was composed of flying boats (seaplanes), was pulled into the Naval Air Transport Service (NATS) to be of service to the U.S. Navy. Pan Am also contributed to the Air Transport Command (ATC) with its land based aircraft.

Pan Am was not the only commercial air carrier that came to the nation’s aid. The U.S carriers that flew primarily domestic service were assigned areas of responsibility by the ATC. The continental United States was divided up into five domestic sectors in which each of the U.S. domestic airlines had the responsibility to move military cargo. The west coast became the responsibility of United Airlines; American Airlines had the east coast; Northwest Airlines had the northwest while Eastern had the southeast and Braniff the southwest portions of the country.

Other air carriers also picked up some additional responsibilities and did more than their fair share. Under the ATA’s mobilization plan, by the end of the war, the domestic air carriers gave up about 359 aircraft or roughly one-half of their active fleets to government service in the Air Transport Command (ATC). Along with that came a corresponding number of ground service personnel in addition to flight crew members. This number did not include Hawaiian Airways which was completely commandeered by the government after Pearl Harbor to provide inter-island service for the military. Nor did it include the Pan Am flying boats that were taken over by the Naval Air Transport Service. Once the U.S got its industrial capacity up to speed, the amount of aircraft production – fighters & bombers – far exceeded the available number of pilots and crew members. The commercial airlines would also fill the nation’s need to train a new generation of military pilots. TWA setup a training center in Albuquerque – Eagle’s Nest – to train American and British pilots for the ferrying command.

Serling, When the Airlines Went to War, 33-35.
Gandt, China Clipper, 74-75.
Ibid., 27, 28-9, 37.
Ibid., 37.
Ibid., 22.
Serling, 29.
the ATA pooled their resources and selected Sam Solomon, president of Northeast to organize and run the Airline War Training Institute (AWTI), which was tasked with: being the official liaison between the ATC and the airlines; and with producing standardized training manuals for air and ground crews members. The concise, simplified manuals were to be used throughout the training program not only to streamline the process, but to unify and standardized all flight training. The successful effort would set the standard for all future military training manuals. The program was so effective that in its fourteen months of operation it produced 12,000 flight crews and over 35,000 ground crews.\(^5\)

When a top secret mission was in the works the Army turned to United Airlines. As two new B-17 flying fortresses rolled off of Boeing’s assembly line, they were flown directly to United’s maintenance base in Cheyenne Wyoming. There they were stripped of their armament, guns, and all non-essentials, only to be fitted with extra fuel tanks and cameras. Under complete secrecy these two B-17s were being equipped for the reconnaissance mission over Japan in preparation for Jimmy Doolittle’s’ surprise raid on Tokyo.\(^6\)

During the war commercial aviation would be merged into two principle military transport units: the Air Services Command (ASC) and the Air Ferrying Command which were later merged into the Air Transport Command (ATC), and the other was the Naval Air Transport Service (NATS). In 1948 the ATC and the NATS would be merged in to the new Military Air Transport Service (MATS).\(^7\)

Under MATS U.S. airlift nearly circled the globe and the major share of the effort was carried out by civilian pilots from the nation’s airlines. As early as 1942, civil aviation had contributed over130 two and four engine aircraft to government service. Out of this number not more than 15 were piloted by the military. The remainder was in the hands of commercial aviators.\(^8\)

Credit must be given to the military for their willingness to avail themselves of the expertise the civilian side of aviation had to offer; as John Plating, history professor at the Air Force Academy, succinctly explains:

> In most cases, the society that allows a free flow of ideas between these two areas is the one to see the most effective use of a specific technological tool, and this is clearly borne out with the United States military’s air transport service in World War II, as military leaders were wise enough to


\(^6\) Ibid., 148.

\(^7\) Crackel, *History of the Civil Reserve Air Fleet*, 85.

recruit experts from outside their ranks, men who at the time were managing the world’s most robust commercial airline companies.\textsuperscript{63}

No one summed up the contributions of commercial aviation to our victory in World War II better than Vice Admiral Aubrey Fitch, who was deputy chief of naval air operations and the first naval aviator to head the Naval Academy:

Unqualified praise is due the airlines of America for the magnificent way they stepped into the breach at the time of our greatest need. Our cargo and transport force was inadequate to meet the sudden transportation demands for the vital supplies, ammunition, and men. The airlines closed the gap by putting their skilled manpower, ground facilities and flying equipment at the disposal of the armed forces. Equally important was their administrative know-how which they also generously contributed. To the airlines of America, the Navy expresses deepest appreciation for the excellent services given in turning the tide to victory.\textsuperscript{64}

The spirit of volunteerism was alive and well in the airline industry from its inception. True it wasn’t all altruistic. The air carriers benefitted from the government-civil relationship. Pan Am was granted the landing rights along with the lucrative airmail contracts that went with it for all of their building efforts. At times they paid a dear price, but were always willing to engage in the risks. In the long run our nation benefitted greatly from the role played by civil aviation in our nation’s wars. Unquestionably, without the contributions of commercial aviation during the war, including Lend-Lease, it is hard to imagine what the outcome would have been. From the earliest days of civil aviation the importance of the nation’s airlines in our national defense was firmly established. For a short period after the war, it would all be forgotten, but circumstances on the horizon would awaken the memory. After the war the air carriers returned to business and profitability during the post war boom. The arrangement between the military and civil air carriers seemed over. There was no lasting agreement, but a model was created – thanks to Edgar Gorrell – which could be replicated in future wars.

**A Case Study: Pan Am and Its People, WW II in the Pacific Theater**

*The U.S. domestic airlines during the war were able to continue commercial service*

\textsuperscript{63} Plating, *The Hump*, 10.
\textsuperscript{64} Brown, *History of the Civil Reserve Air Fleet (1952-1986)* 6
because their routes did not extend into the war zones. But over half the Pan American system was converted immediately to military use. John Plating

Focusing on the little known story of one U.S. airline’s involvement in war will help us to better understand the capabilities and potential of airlift and its value to the military. It illustrates the advantages of civil aviation as opposed to military aviation when it comes to the task of implementing a major and sustained airlift. It also highlights the superior skills and professional competency of civil aviators over their military colleagues at that stage of their relationship. For us it sets the stage in the development and evolution of the Civil Reserve Air Fleet. The Civil Reserve Air fleet was built and modeled on the major wartime contributions of U.S. civil aviation not only during war, but under the most trying and challenging conditions. Consistent with our focus on civilian crew members and airline employees, this case study introduces several important individuals whose professional skills, dedication and perseverance greatly contributed to the successful outcome discussed below.

There is no greater or more single example of a civil air carrier’s role in assisting its government in war, than that of Pan Am in the Pacific and China during WW II. Altogether in the Pacific, Pan Am was involved in the war on three different but related fronts: (1) the events leading up to the war, including building, maintaining, and staffing of strategic island outposts across the Pacific. (2) In the thick of battle across the Pacific, including the attack on Pearl Harbor, Midway, Wake, Guam, and Hong Kong. (3) In the China Theater and later in the China Burma India Theater (CBI) also known as “Flying the Hump.” Pan Am’s involvement in the Pacific war, as we shall see, contributed in many ways to the war’s successful outcome. In some cases the lines between the military and Pan Am were blurred. Strategically their involvement was not planned, but was the result of the circumstantial placement of Pan Am, its people and its assets in that place and time in history. When war broke out and it all came to a head however, Pan Am could have gracefully bowed out. Instead, the company and its employees remained in place and set a standard of service to the nation in times of war and crisis that remains part of the proud tradition of civil aviation till this day. While the domestic air carriers played an important role in keeping the war machine going on the home front, Pan Am’s aircraft were being bombed and strafed, even before the U.S.’s entry into the war. There was some reason to believe that two

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of Pan Am’s Clippers (aircraft) were destroyed by sabotage, but it was never conclusively proven. The circumstances surrounding these tragic events however, clearly demonstrate the dangerous environment in which Pan Am was operating in, not to mention the thorn – Pan Am’s presence represented – in the side it of the Japanese. Crew members and passengers lost their lives, and aircraft were damaged and destroyed. None of it would have happened without the willingness of Pan Am’s founder, Juan Trippe, and the many men who managed, serviced, and flew the aircraft. It is a story not well known even in aviation or military circles, outside the few scholars who specialize in this area, and some aviation enthusiasts. It does however, illustrate the importance of airlift; and to what a group of civilian volunteers can accomplish under trying circumstances. It is indeed part of the history of civil airlift in wartime, and highlights the individuals who rose to the occasion brought on by catastrophic events. The authors of the *Chosen Instrument: Juan Trippe, Pan Am.*... make no bones about Pan Am’s involvement in the war, and the encouragement it received from the government. Here is an excerpt:

> Pan American had been engaged in defense operations long before the war, as the record plainly shows. The Army pilots ferrying the first B-17s to the Philippines two months before Pearl Harbor used the Pan American facilities at Midway and Wake. Since December the Japanese had been in possession of Wake and Guam – the mid-Pacific route was lost – but the line to Australia was open through Canton Island and New Caledonia [Noumea].

The three aspect of Pan Am’s wartime service, enumerated above, are inextricably woven together and will be described chronologically rather than separately.

**The Context at the Outbreak of War**

World War II began in China, and it was to China that Juan Trippe turned when he decided to develop transpacific air service. In the 1930s China was mired in contrasts: a nation, technologically backwards, without highways, adequate or sufficient rail service, or communications infrastructure. The Chinese were heavily dependent on their waterways and navigable river system for transportation and the manual labor of its millions of people who toiled the land. The only option to river travel was overland by foot. The Chinese became heavily reliant on outside sources to bridge the gap between their traditional and archaic way of life and the modern outside world. The people suffered a hard existence, living and dying in the same

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manner as their ancestors did for centuries. Without heavy industries and overly dependent on foreign imports for manufactured goods, the foreigners who came, for the most part, were there to exploit. The country was politically fractured; weakened by foreign concessions, and controlled by warlords. The Chinese people were also at the mercy of nature, particularly by the periodic flooding that wreaked havoc over the land, which often took a heavy toll in human life. The pressures within the country were for the average peasant an ordeal in daily survival, which unfortunately many failed to passed. Yet the first attempt the Chinese made at building a major transportation infrastructure was to create an airline. For this they turned to American industry.

The internal problems of the Chinese were matched by external ones. The Japanese, one of the foreign concessioners, were provoking the Chinese and instigating hostilities from their base in Manchukuo, formerly Manchuria, which Japan annexed from China in 1931. Added to this was the fast growing Communist Party under the able leadership of Mao Tse-tung and the charismatic Chou En-lie which was supported by the Soviet Union. The Communists were especially popular among the peasants and the dispossessed. The Chinese Nationalists saw them as more of a threat than the Japanese. The result unfortunately, was that the Nationalists expended more of their military resources pursuing the Communist than they did on the fighting the Japanese. The situation was truly chaotic and dangerous.

One of the warlords, the strongest and the one holding the most strategic territory, was the Generalissimo Chiang-Kai-Shek, who had the backing of some very wealthy and influential Chinese families. One in particular was the Soong family. The Soong’s made their fortune in banking and printing and were dedicated to unifying China under a strong and able leader. One of the Soong daughters had been married to the famous Chinese revolutionary Sun-Yat-sen, another was married to H.H. Kung, a very wealthy individual who would become Finance Minister under the Nationalists, and the youngest sister, May-ling, would marry the Generalissimo and become Madame Chang-Kai-Shek. The three sisters were raised in a strict Methodist tradition and all attended Wesleyan College in the United States. In addition to the three sisters there were three brothers, two of which were heavily involved in financing the Nationalist government and supporters of the new upstart airline, T.V. (Tse ven) and T.L. (Tse liang) Soong. The Soong brothers and sisters were hoping against hope to unify China under a strong democratic leader.
After the Marco Polo Bridge incident (July 1937), a military confrontation precipitated by the Japanese, the Generalissimo moved his capital from Peiping (Beijing) to Nanking in the South in order to distance himself from the Japanese threats and incursions (With the fall of Nanking in December 1937, Chiang Kai-Shek again moved the seat of government to Chungking.).

The Nationalists under Chiang Kai-Shek were attempting to unify and modernize China. The Soong’s, whose father was also educated in the United States and who became a Methodist minister, were sympathetic to democratic values and inclined toward the United States. This was not necessarily the Generalissimo’s position, and the Chinese people almost universally did not look favorably toward foreigners, Americans or otherwise. This is indeed a brief sketch of the social, economic and political milieu then existing in China before and just after the nation’s airline, China National Aviation Corporation (CNAC) was founded.

Juan Trippe, Pan Am’s founder and corporate empire builder, was as ambitious as one’s imagination could fathom. He was set to make his Pan American Airways System the first to establish commercial airlines service across both the Atlantic and Pacific oceans. By the early 1930s his airline was already servicing the Caribbean and South America. A combination of problems including negotiating landing rights and the onset of war in Europe delayed the startup of trans-Atlantic service, but the Pacific offered a more timely opportunity and Trippe turned his attention westward. The transpacific route had as many, if not more problems than the proposed Atlantic service, but for Trippe, they were surmountable. What he didn’t count on however was war, but somehow or other his ambitious endeavors and the war would become inextricably woven together.

**War in the Pacific**

Pan Am’s involvement in national defense and security began long before the outbreak of war; not intentionally but by default. It so happened that Juan Trippe’s vision of flying the vast expanses of the Pacific Ocean by island hoping, coincided with the U.S. Navy’s idea of strategic defense by securing certain islands in the Pacific west of Hawaii. The logical way to cross the Pacific was and is of course the shortest way, and that route takes one north over Alaska and the Aleutian Island chain. The route was surveyed by Charles Lindbergh at the request of Trippe and was found not to be practical in those days. Any chance of making the necessary stopovers

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enroute were precluded by bad weather and frozen winters. The safest and the most practical way
then, was a more southerly route, by far the longest. Aircraft range and navigation were two
critical problems to overcome. The advent of new aircraft like the Sikorsky S-42 and the newer
Martin – 130, both “flying boats,” added the capability to cover the distance, provided that the
stopover islands were within range. In the case of the Martin 130 that was 3,000 miles. The
longest leg on the transpacific crossing was San Francisco to Honolulu and that was 2,400 miles.
Two of the island links proposed in the chain – Midway and Wake – were atolls, i.e. mere specks
in the ocean; and for an aviator of the day that presented a problem. Missing a mere speck in
the great vastness of the Pacific Ocean meant disaster, as was the case with Amelia Earhart.*
Celestial navigation, used by seafarers for centuries, was the most trusted method upon which
these early overwater flight pioneers relied, but even a minor error of a few miles, which was not
uncommon, could be fatal. One of Pan Am’s engineers, Hugo Leuteritz, a radio expert, was
working on radio direction signals as a way to navigate. The method used a distinctive radio
signal broadcast over a set frequency. An Aircraft tuning into that frequency would literally
follow the signal to it source. Leuteritz was eventually able to perfect his methods and this
innovation would become the primary navigational tool backed up by the sextant. Another
hurdle to overcome was to secure landing rights, but no administrative or jurisdictional entity
over the atolls of Midway and Wake could be found. Under the order of President Roosevelt
(FDR) the islands became protectorates of the United States administered by the U.S. Navy.
Robert Gandt in his book the China Clipper directly attributes the whole affair to Trippe’s
instigation: “Trippe pushed the Navy to take Midway and Wake under their jurisdiction and lease
it back to Pan Am for economic development…on December 13, 1934 FDR signed the order.”
With the politics out of the way, Trippe chartered a merchant vessel, the SS North Haven. It was
loaded with fuel, food, building materials, and plenty of man power. The North Haven set sail
with the goal of converting both Islands to sea plane bases with all the required facilities and
personal. Pan Am secured landing rights in Guam and Manila thus linking up San Francisco
with Hawaii, Midway, Wake, Guam, and Manila as stopovers to its trans-Pacific anchor. To

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* Amelia Earhart’s navigator was a former Pan Am navigator, named Fred Noonan. Noonan was the navigator on
many of Pan Am’s survey flights in the Pacific. Pan Am let Noonan go because of an alcohol problem.

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68 Robert, Gandt, China Clipper, 72-3.
69 Gandt. 72-76.
70 Ibid., 74.
71 Ibid., 75.
close the ‘loop’ Trippe was eyeing Shanghai as the terminus. Shanghai was by far the most enticing city in the orient and the business and commercial gateway to China. Shanghai was truly an international city, housing a very large and diverse foreign population. If Trippe could only gain access to the internal China market his international terminus would become the opening to the interior. Shanghai was located in a secure harbor on the east coast of China up the Whangpoo River, Ever since the foreign intervention in China to put down the Boxer Rebellion 1898-1901, the French, British, Russian, American, Japanese, and Italians had exacted generous concessions from the Chinese and had at their disposal a large and extensive international (extraterritorial) zone within the heart of Shanghai. Free from Chinese interference, the concessions included most favored nation status for most of the foreign “occupiers.” If commercial or financial arrangements were granted to one of the concessioners then that right applied to all. In the case of aviation for example, if the Chinese granted landing rights to the Americans, then the British, French, and Japanese etc. would gain equal rights to land their commercial air carriers. The Chinese had no intention of granting any landing rights to anyone, and were particularly paranoid about letting the Japanese have access to their airfields.⁷² The Chinese people, understandably, hated foreigners but harbored a particular animosity toward the Japanese. If one considers just how provocative the Japanese had been toward the Chinese since their invasion of Manchuria in 1931, their refusal to grant any additional concessions to the American made sense. In spite of the xenophobia however, Chinese peasants continued to flood into Shanghai’s international settlement where their chances of finding labor was just as enticing as the immunity from Chinese laws they stood to gain within its confines. About a million people lived in the settlement of which 60,000 were foreigners.⁷³

As an American company, Pan Am presented certain problems concerning the reciprocity agreements among the most favored nation states, primarily because it was an airline requiring landing rights. The way Pan Am chose to gain access to this profitable market, and bypass the most favored nation clause of the concessions, was to buy a stake in the China National Aviation Corporation (CNAC), the closest thing China had to a national airline. In 1928 the Chinese Nationalists formed a partnership with the American owned Curtiss-Wright Corporation, which was a product of a merger between the Curtiss Aeroplane and Motor Company with Wright

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⁷² Bender, and Altshul, Chosen Instrument, 253.
Aeronautical Company. Chiang-Kai-Shek’s Chinese Nationalist government owned 55 percent i.e. the controlling interest; and Curtiss Wright owned 45 percent but maintained operational control.74 This partnership did not include any landing rights as the Curtiss-Wright Corporation was not an airline but primarily an aircraft manufacturer. By 1932, well into the Great Depression, Curtiss-Wright suffering from catastrophic losses was looking for a buyer to unload its interests in CNAC. The timing coincided with Pan Am’s plans to cross the Pacific. Pan Am had the funds and was in the market. Trippe had been eyeing Shanghai, where CNAC was headquartered, as a Pacific terminus to his planned transpacific service. A stake in CNAC would assure them access into the coveted internal China markets, as well as the landing rights into Shanghai. The timing was fortuitous, but the Chinese were reluctant to ink the deal. Their primary concern in entering into a partnership with Pan Am was that the Japanese would demand reciprocal landing rights and access for their airline. In order to consummate the purchase Pan Am’s manager in the Pacific, Harold Bixby,* came up with an ingenious plan to create a subsidiary of Pan Am which in turn would become a subsidiary of CNAC and thus bypass the reciprocal agreements.75 It was enough to satisfy the Chinese. The agreement between Pan Am and CNAC was penned on October 8, 1933.76 The deal gave Pan Am everything it was looking for, except one, which they did not bargain-for; Pan Am and its employees would become embroiled in war with Japan four years before Pearl Harbor was attacked. In the beginning however the investment began paying off, and both parties were making a profit until July of 1937 when Japan’s provocative actions precipitated an incident at the Marco Polo Bridge outside of Peiping (Beijing). The “incident,” as the Japanese called it, would be the first shots fired in the Sino-Japanese war to which some historians attribute the actual outbreak of WW II. By August the Japanese, having precipitated yet a second “incident,” began a full scale onslaught against Shanghai. With fighting underway, Shanghai became an early casualty of the war; Pan Am’s plans to terminate their transpacific service in Shanghai were derailed. Trippe began considering the British colony in Hong Kong as an alternate to Shanghai but the British were holding up Pan Am’s efforts to begin transatlantic service by denying them the needed landing rights until the British national carrier, Imperial Airways, was in a position to begin reciprocal service. The

74 Crouch, China’s Wings, 11-13.
* Bixby was the St. Louis banker who financed Charles Lindbergh’s historic solo flight across the Atlantic in 1927. During the depression he fell on hard times and with Lindbergh’s recommendation he was hired on by Pan Am.
75 Bender and Altschul. Chosen Instrument, 207.
76 Grouch, 55.
British nixed the deal. Hong Kong Island sits at the mouth of the Pearl River where it empties into the South China Sea. Situated on the extreme east side to the Pearl’s wide mouth was the Portuguese colonial island of Macau. Trippe turned to the Portuguese with whom he was already dealing with for landing rights in the Azores on the route to Lisbon for his trans-Atlantic service. The Portuguese were more than happy to have air service established on their island and the local Chinese businessmen saw the opportunity to trump their competitors in Hong Kong. Trippe never really planned to make Macau the terminus of Pan Am’s transpacific route, but the preparations were begun and were heavily advertised. As expected the Chinese business leaders in Hong Kong were up in arms. They would not be out done by Macau and began putting pressure on the British to grant Pan Am the landing rights into its colony. The result, as expected, would allow Pan Am to terminate its Pacific service in Hong Kong. With Shanghai in ruins, CNAC moved its headquarters to Chungking, but not before it pulled off one of history’s first wartime evacuations by air. The Pan Am (CNAC) manager William Langhorne Bond managed to get his employees, their families and important government people and their documents out of the war torn city before its complete collapse. Most importantly Bond got all of his aircraft out. Bond decided to set up his base of operations in Hong Kong.

CNAC filed and was granted the rights to fly from Hong Kong to Canton (Guangzhou), another entrepot located about 85 miles north up the Pearl River. This enabled Pan Am’s trans-Pacific service to link up with its subsidiary CNAC into the bustling commercial center of Canton. This good fortune however was not to last. On August 24, 1938 three years before the Japanese were technically at war with Britain and the United States, and one year after the they attacked Shanghai, a CNAC DC-2 took off from Hong Kong on its way to Canton with 14 passengers and a crew of three under the command of Captain Hugh Woods (Woody), who like most CNAC captains worked for Pan Am. As Woods took off from Hong Kong and was climbing out he spotted a Japanese attack squadron over the mainland and thought it best to head back to Hong Kong and circle while they passed. When he thought it safe he resumed his course to Canton. After a short time the squadron returned; it was too late to turn back. Woods ducked into the clouds, but the thin layer did not provide much cover. When he came out of the clouds however he thought they were gone, but just then they swooped down on him from behind and shot up the cabin and the cockpit panel. Miraculously no one was hurt. As the pursuers returned

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77 Bender and Altschul, *Chosen Instrument*, 254-256.
for another pass, he was able to bring his aircraft down onto the river close to the shore, but the swift current began dragging the aircraft down river. A quick check turned up only one casualty, a lady who was shot in the neck. The crew was able to get a message off; “Woods forced to land on the river by Japanese, Everybody safe.” Woods ordered everyone out of the aircraft into the river to swim for the shore, but the pursuing Japanese came back six to seven times strafing the aircraft and letting off some bombs. In the melee, Woods, one other crew member, and only one passenger survived. Fourteen dead and one aircraft destroyed, it became known as the “Kweilin Incident,” and was the first civilian airliner to ever be intentionally shot down in wartime.

After all the protests were filed and the excuses – but no apologies – were made, the route from Hong Kong to Canton continued to be served. The situation remained tense, but for the next three and a half years the China National Aviation Corporation with its Pan Am manager William Bond, its Pan Am pilots including Hugh Woods, Charles Sharp, and Bill McDonald, and its Pan Am co-pilots and mechanics continued to keep CNAC flying to Chungking, Canton, Hankow, (Hankou), and Burma. By December 1941 however things would drastically change.

In the early morning of Monday December 8, 1941, Pan Am Captain Fred Ralph was conducting his pre-flight check on Pan Am’s S-42 flying boat, the *Hong Kong Clipper*, when he got word not to depart for Manila. Contrary to those orders, he was directed by the British airport manager at Kai-Tak airport to get the Clipper out of Hong Kong. News hadn’t arrived in Hong Kong yet about the attack on Pearl Harbor. Captain Ralph called the Pan Am manager, William Bond, at his home asking what he should do. Bond who had just received word about Pearl Harbor and knew the U.S. was at war with Japan, told Ralph not to board the passengers, offload the mail and get the passengers and his crew to a safe place. It was already too late. As Ralph and his crew were offloading the mail someone noticed an attack squadron of Japanese aircraft heading straight for the airport. Twelve bombers escorted by nine Nakajima 27 fighters broke off from the main group and headed directly for the Pan Am flying boat. Everyone on the ground began scrambling, and as the strafing began Ralph jumped into the water and took refuge behind a cement pillar holding up the dock. The strafing and bombing continued around the Clipper and the other aircraft parked on the taxiways. Shrapnel tore into the fuel tanks and up in flames went

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78 Crouch, *China’s Wings*, 159.
79 Crouch, 155-159.
* Because of the time/dateline difference, December 8 in Hong Kong was December 7, in Honolulu. The attacks came on the same day but by time the attack came in Hong Kong it was already after 2:00 pm in Honolulu.
Pan Am’s *Hong Kong Clipper*. Remarkably no one was hurt on the ground, but Pan Am lost one flying boat, and CNAC (Pan Am) lost two DC-2s. Although that particular Japanese raid did not include the population centers in Hong Kong, an attempt was made to destroy one particular apartment building, the Eu Garden apartment at 158 Argyle Street. Fortunately the bombs landed about 30 feet away and the Pan Am crew quarters were spared, although Chuck Sharp, Hugh Woods, and several others got a rude awakening. It is believed that Japanese spies pinpointed the building as the locale where the American pilots resided. Fortunately, all were saved to fly another day, as were two DC-3s and one DC-2 that remained in a hangar, plus pilot Bill McDonald had another DC-3 in Chungking. Immediately following the attack, the aircraft were moved from the hangar to the fields outside the airport and camouflaged until they could be evacuated by night.

Bond along with the pilots and maintenance staff marshaled what equipment was left and began planning the evacuation. All flying would be done at night. The evacuees included employees, their families, Chinese officials, and the very important members of the Soong family who were then in Hong Kong, and that included H.H Kung’s wife and two daughters, and Soong Ching-Ling, the widow of Sun Yat-sen. The operation was moving to Chungking. This was the second evacuations for CNAC and it continued for several nights. The pilots were shuttling back and forth to Namyung and then on to Chungking. Each time they returned to Hong Kong it would trigger an air raid alarm and the pilots would have to turn on all their lights in order not to be shot down. Two of the last evacuation flights were so overloaded that they used up all the runway and were sent airborne as they rose up on the berm that ended at the seawall. On the last day as the last plane took off from Namyung to Chungking the Japanese attacked the airfield but it was too late. The last CNAC flight had already departed. The airlift was heralded in the New York Times and Washington Past as “the most perilous bit of work in the history of commercial aviation.”

There is no question that the Japanese were aware of and disturbed by Pan Am’s transpacific routes and their special arrangement with China National Aviation Corporation. An FBI agent

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81 Ibid., 239.
82 Ibid., 155-159
83 Ibid., 241-2.
84 Ibid., 243.
85 Ibid., 243-58.
86 Ibid., 257-8.
who was investigating the mysterious disappearance of Pan Am’s *Samoan Clipper* (discussed later) wrote the following memo to J. Edgar Hoover:

Mr. Thach [Pan Am VP] stated that the Japanese government has been hostile toward trans-Pacific flights at all times, this hostility being predicated upon several elements, primarily the fact that Americans had taken the initiative in pioneering the flights across the pacific, therefore discrediting the Japanese enterprise. Further hostility is based upon the fact that the termination of the route is in China rather than in Japan. Further hostility arose from the fact that in order to secure the consent of the Chinese government for the use of Shanghai as an eastern terminus of the line, the Pan American Corporation had formed a partnership with the Chinese governments.87 Interestingly the author believes: “Thach completely miscalculated the source of Japan’s fear. What concerned Japan far above anything else was simply the strategic advantage the transpacific line gave the American Navy.”88 The Japanese were also aware of the special relationship between the U.S. Navy and Pan Am. Bob Gandt in the “China Clipper” had this to say about that relationship:

Secretary Swanson [Navy] granted to Pan American the use of naval facilities at San Diego, Pearl Harbor…Thus was cemented a relationship between the U.S. Navy and Pan American Airways that continued to grow throughout the next decade. Technology would be exchanged, crews cross-trained, fields, harbors, and navigational facilities shared, personnel transferred from naval service to airline service and vice versa. In the empty skies of the western Pacific, Pan American would act as the surrogate’s eyes of the navy.89

The Japanese were more than aware of the strategic value of Pan Am’s transpacific service, and of their presence in Hong Kong. The month before Pearl Harbor, November 1941, Pan Am held up the departure of the *Hong Kong Clipper* in order to carry a Japanese special envoy on his way to Washington to meet with U.S. Secretary of State Cordell Hull. He was allegedly sent to Washington to break the deadlock between the Japanese and American negotiators. His name was Saburo Kurusu and he flew across the Pacific on Pan Am.90 Historians believe Kurusu was sent to the U.S. to stall for time as the Japanese attack force was steaming toward Pearl harbor. The next time the Japanese came to Hong Kong they had their sights on the *Hong Kong Clipper*.

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88 Ibid., 174.
Across the Pacific

By 1938 Pan Am was looking for a second transpacific route, this time to Australia and New Zealand. The route chosen was over Canton Island and Fiji. The problem with Canton Island was that it was claimed by the British, but Trippe’s researchers turned up records regarding a U.S. merchant ship (c.1854) going to Canton Island to harvest guano for fertilizer. This little known fact meant the U.S. could also make a claim for the Island and indeed it did. The U.S. Navy was very interested in the Island which was suitable for a seaplane base. The Japanese were also keeping a watchful eye on the Island as it was close to the islands that Japan had been granted as part of their mandated territories at the treaty of Versailles. Contrary to the treaty requirements, the Japanese had been fortifying these islands for decades. Japan had been granted several large island groups in Micronesia after WW I as part of their mandate. The island groups that came under the Japanese mandate are familiar to students of the Pacific War: the Marshalls, Carolines, and the Marianas. Intelligence sources believed that the Japanese were heavily fortifying these islands as an outer defensive perimeter and as a staging or jumping off point to new conquests. 91

In hindsight the intelligence was correct. In March 1938 FDR issued an executive order claiming Canton Island and the Phoenix Island group. Following the annexation, Secretary of the Interior Herald Ickes granted Pan Am a lease to use the Island as a seaplane base. The British initially denied the rights to land in Fiji but later relented and came to terms with Pan Am. Lastly a deal was struck with the French for the use of Noumea in French New Caledonia. 92 Pan Am had its island linkup to begin service to New Zealand.

On December 7, 1941 Juan Trippe received a call from the Secretary of the Navy, Frank Knox, informing him about the attack on Pearl Harbor. Pan Am had five Clipper ships (aircraft) to account for: The China Clipper, the Anzac Clipper, the Philippine Clipper, the Pacific Clipper, and the Hong Kong Clipper. 93 All were somewhere along Pan Am’s extended trans-Pacific route system. Having already been serving China through CNAC, Pan Am was already involved in the Sino-Japanese War since 1937 and the fall of Shanghai. Before that “Day of Infamy,” Pan Am had already lost two Clippers in the Pacific under suspicious circumstance. Suspicious enough that the FBI recommended an investigation be opened into the incidents. J. Edgar Hoover agreed that there was enough circumstantial evidence of possible Japanese

91 Bender and Altschul, The Chosen Instrument, 228.
92 Ibid., 287-8.
93 Daley, American Saga, 315.
sabotage to warrant an investigation. The *Samoan Clipper*, a Sikorsky S-42, under the command of Captain Ed. Musick, Pan Am’s senior and most experienced captain and a crew of six, was the first to be lost. Musick was surveying the Australia routes and had just taken off from Pago Pago on the morning of January 11, 1938, when an engine oil leak led him to turn back to the Island. On his final approach communications were broken off. That was the last of what was heard from Musick and his crew. A search of the surrounding seas by a U.S. Navy minesweeper USS Avocet turned up oils slicks and debris including a Pan Am uniform jacket. The *Samoan Clipper* blew up mysteriously and all onboard were lost.\(^{94}\) Seven months later, on July 28, 1938, the *Hawaiian Clipper*, a Martin M-130 under the command of Captain Leo Terletzky had just departed Wake Island on its way to Guam, when somewhere between Wake and Guam the *Hawaiian Clipper* mysteriously disappeared. Nine crew and six passengers were lost; no trace was ever found of the aircraft. What is known for sure, was that one passenger by the name of Wah Sun Choy a New Jersey restaurateur, whose restaurant was coincidently named the China Clipper was onboard the flight. Choy was also president of the Chinese Relief War Fund in the United States, and was carrying some three million dollars in cash for the Chinese Nationalist Government. Rumors and theories abound about a hijacking by Japanese infiltrators, but the Hawaiian Clipper’s disappearance remains a mystery till this day. It is a fact that Wake Island was very close to several heavily fortified Japanese Islands including Saipan, which was only 136 mile away, and Japanese fishing boats regularly plied the adjacent waters.\(^{95}\) Since no sign of wreckage was ever found rumors continue to persist, but it is no more than conjecture. Given the time, place, and circumstances surrounding the Clipper’s disappearance however, there is some basis for speculation.

Unlike the U.S. Government and the Department of the Navy, Trippe had a contingency plan in the eventuality of a Japanese attack in the Pacific and in case of all-out war between the United States and Japan. Each pilot carried a sealed envelope with coded instructions on what to do if hostilities erupted between the U.S. and Japan. On that day – December 7, 1941 – three of the five captains commanding the trans-Pacific Clippers had to open their envelopes. In all cases Trippe’s contingency plan saved them and their aircraft to serve another day. There was absolutely no question that American commercial aviation, and that meant Pan Am, were in the

\(^{94}\) Jackson, *China Clipper*, 165-9.

\(^{95}\) Ibid., 180-9.
sights of the Japanese fighter and bomber pilots. The Japanese made no pretenses or excuses, and did not discriminate against their enemies, civilian or military.

No Clippers were in the Pan Am station at Pearl Harbor when the attack occurred. The *China Clipper* had left the day before and was safely ensconced at its mooring at Treasure Island in San Francisco Bay, having safely delivered the Soviet Ambassador, Maxim Litvinov, to the United States, Fortunately the Pan Am station radio operator at Pearl Harbor was able to warn: “Pearl City, Midway, Wake, Guam, Manila, Canton, Noumea, and San Francisco, within ten minutes of the attack.”96 The warning allowed those stations to notify all the Clippers enroute, except for the Hong Kong Clipper, which was overnighting in Hong Kong.97 The captains of those aircraft immediately turned to their contingency plans for instructions on how to proceed.

The Clipper in the most precarious situation was the *Anzac Clipper* which was flying right into the midst of the attack, just one hour from landing at Pearl Harbor. The seventeen passengers onboard were having their breakfast when Captain Lanier Turner was opening the envelope with his instructions. His orders were to proceed to the big Island of Hawai'i and land at Hilo Bay. He still had another 150 miles to fly his slow and cumbersome flying boat through airspace infested with the Japanese marauders, who were still pounding Pearl Harbor. Fortunately Turner made it into Hilo without incident. Once fueled, he waited till the next night to return to San Francisco, traveling in the dark and under radio silence.98

The *Philippine Clipper*, under the command of Captain John Hamilton, was also in danger. Just thirty minutes out of Wake Island on his way to Guam he received word of the attack on Pearl Harbor. Captain Hamilton referred to his contingency plan which directed him to return to Wake to evacuate all Pan Am personnel. Guam was already under attack as the radio operator at Guam had to break off contact because the bombs were “landing too close.”99 Hamilton was carrying spare tires for the famed Flying Tigers along with one of their pilots. After dumping about three thousand pounds of fuel he returned to Wake. Hamilton was a 46 year old former Navy pilot who had been with Pan Am for nine years. Once on the ground at Wake the aircraft was readied for departure while the Pan Am employees and their families got ready to evacuate. Hamilton was at the aircraft while it was being fueled and waiting for the Pan Am staff to pack

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97 Ibid., 356.
up. Each employee and family member was allowed one bag at no more than sixty kilos. While he was waiting, the commanding officer of a Marine fighter squadron stationed at Wake approached Hamilton and asked him if he would be willing to escort them out to sea to hunt for Japanese targets. They needed the Pan Am flying boat in order to navigate them back to Wake Island because, at that time, the Marine fighters lacked navigation equipment. Hamilton agreed, but it was too late as all hell was about to break loose. Japanese fighters and bombers came swooping down on the base. Hamilton was able to take cover in a drainage ditch. The water around the Clipper ship was awash with swells caused by the exploding bombs. Two fuel storage tanks went up in fiery explosions. The fully fueled Clipper was strafed but her engines and fuel tanks weren’t hit. After the attack Hamilton surveyed the aircraft with his flight engineer and although there were plenty of bullet holes in the fuselage and overhead they deemed the aircraft airworthy. The escape was made at night with 60 passengers and crew onboard. The aircraft was so overloaded that it took three attempts to get it aloft. Finally, under the cover of darkness, they were on their way to Midway. The radio direction finders on both Wake and Midway were out of service so they had to rely on the celestial navigation. There was some anxiety because Midway was just a tiny atoll and any slight deviation might mean they would miss their mark in the vast expanses of the Pacific. Both the navigator and Hamilton took fixes in order to compare their accuracy. At times Hamilton brought the Clipper down to several hundred feet above the water to avoid being spotted by Japanese patrol planes. After 1182 miles over the open ocean, the Midway Atoll appeared on the horizon – dead ahead, but it was indeed a sight, flames and black smoke billowing from its fuel storage tanks. Midway was attacked just before they arrived. They had no choice but to land and take on fuel. They managed to refuel and make their way to Hilo Bay Hawaii; but on their approach they were directed to continue to the Pan Am’s facility at Pearl Harbor which remained untouched after the attack. Hamilton safely brought his aircraft back to San Francisco with his sixty passengers; a total of 2500 miles through Japanese controlled airspace.  

Only the Pacific Clipper was left to be accounted for and its safe passage home turned into quite a story. The return of the Pacific Clipper was indeed an American Odyssey in every sense of the word. Under the command of Captain Robert Ford, a 35 year old former Navy pilot, the Pacific Clipper and its 11 man crew would write history, blaze new trails, and overcome what

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would normally be considered insurmountable odds. Ford joined Pan Am in 1933 and began flying in the Caribbean. In 1939 he was flying trans-Atlantic on the New York – Lisbon route. He transferred to the Pacific division in July of 1941, and was flying Pan Am’s newest flying boat, the Boeing 314, when Pearl Harbor was attacked.\(^{101}\) Ford was on his way to Auckland having departed Noumea (New Caledonia) when he was alerted about the Japanese attack on Pearl Harbor. His orders were to continue on to New Zealand and await further instructions.

During their wait Ford had the Clipper Ship painted in camouflage colors in order to escape detection while flying through Japanese controlled airspace. Japanese aircraft carriers were dispersed in the western pacific on the hunt for targets. After waiting for over a week, Ford was ordered to return to Noumea to pick up the Pan Am personal, their families, and dropped them off in Australia. Twenty-two men, women, and children were airlifted from Noumea and dropped off in Gladstone, Australia. Ford was instructed to try to return the aircraft and its crew to New York, via Indonesia, India, Africa, and South America, that is, the long way around the world. In order to plan the route home they were forced to use geography textbooks provided by the Pan Am manager in Australia, and whatever maps they could get their hands on. They had to maintain radio silence, navigate by the stars (celestial navigation), and pick their own landing sites.\(^{102}\) Since the Boeing aircraft was a flying boat they could only land on water and had to determine what landing sites were suitable without any ground support. In addition, they had to find aviation fuel (100 octane) and negotiate its purchase. They weren’t always successful. Much of the airspace they flew through was controlled by the Japanese and over parts of Africa (Egypt and the Sudan) they passed close to Nazi controlled territory. They were indeed a target. In addition, they encountered some serious problems along the way which had to be overcome. They couldn’t obtain aviation fuel in Gladstone, and had an eleven hour leg ahead of them. They decided to go with less than full tanks. The captain knew that the crossing of the Australian continent did not afford any suitable landing sites for a seaplane. More problems loomed ahead however, including, losing one engine, an encounter with a Japanese submarine, pursuit by Royal Dutch fighters, and having to use gasoline instead of the 100 octane aviation fuel, which would result in engine problems.


The possibility of a civil air carrier becoming a victim of friendly fire is not only a possibility today and a matter of grave concern, but in 1941 it was reality that had to be dealt with. The encounter with the Dutch fighter pilots happened as they were approaching Surabaya, Java. It seems the city was undergoing air raids almost daily, and the Dutch fighters were itching for a kill. The Pacific Clipper was having difficulty finding the right radio frequency to communicate with the fighters but could hear all of their communications. Picking up the conversation between the fighter pilots and their ground control base, as they first spotted the Clipper. Here is what was recorded:

“Cobra, this is A for Albert, Single Bogey at eleven. Angels four. Westbound, am proceeding to intercept, stand by.”

“A for Albert, Cobra here, Roger Bogey, will you need backup?”

“Cobra, A for Albert, she a big one, some kind of Flying Boat, better come up and have a look-see.”

“…will maintain escort at his six o’clock position, request further instructions.”[Meanwhile onboard the Pacific Clipper, John Poindexter the chief radio operator, turned to Captain Ford and said:]

“Skipper, I’ve picked up their transmissions, but it’s a channel we can’t transmit on, what should we do?” “Nothing to do but continue straight and level. We sure as hell don’t want to startle them with any sudden changes,” Ford said.

“A for Albert, this is B for Bravo, that’s a mighty fine target we have there. Why take a chance, I think we should blast it now…” “B for Bravo, hold on chap, we need ground ok…”

Luckily one of the Dutch pilots saw part of the US Flag painted on the top of the wing. A very close call as the Pacific Clipper and its crew of eleven would have another day. The Boeing 314 flying boat was the largest commercial aircraft in existence at the time. Although it had been introduced on Pan Am’s trans-Pacific routes, the B-314 had not yet been seen in Europe, and remained unknown to the Europeans. The camouflage paint did not help matters. The trip from Surabaya to Trincomalee, Ceylon was uneventful, but thirty-five minutes after taking off from Trincomalee and their way to Karachi, the number three engine sprung an oil leak and had to be shut down. They had no choice but to return to Trincomalee. The story of how they repaired the engine is an example of ingenuity and improvisation which was not at all uncommon among this

* Some sources claim that the fighters were British; however the primary source says they were Dutch. That their transmissions were in English however leaves the matter in doubt and demands further explanation.


104 Ibid., 96-7.
group of professional airmen, and is worth recounting here. Robert Daley spells it out in the *American Saga: Juan Trippe and His Pan Am Empire*:

Ford’s flight engineers, Swede Rothe and Jocko Parish, tore down No 3 engine. When they came to number 6 cylinder, they found that ten of the sixteen studs holding the cylinder on had broken off. The studs themselves could be replaced from spares, but the job could not be done without a special tool, and they did not have it. Parish went across the harbor to a British warship, borrowed some cold rolled steel and the warship’s lathe, made the tool he needed, and went back to the flying boat and to work. The repairs took the rest of Christmas Eve and all of Christmas Day. On December 26 Ford lifted the flying boat off Trincomalee harbor for the second time. The plane climbed so slowly in the dawn air that fourth officer John Steers thought he could almost feel the palm fronds brushing the bottom of the hull.  

After 209 hours in the air, not counting the time on the ground, the *Pacific Clipper* made its way into LaGuardia’s Marine Terminal on January 6, 1942, exactly one month later, and six weeks after they left San Francisco on their regularly scheduled flight. The trip from New Zealand, the point where they were advised that their route home through the Pacific was blocked, to New York, was over 23,000 miles. The Pacific Clipper was the first commercial airliner to circumnavigate the globe, a total 31,500 miles from San Francisco to New York via the Pacific, Indian, and Atlantic oceans. Most of the trip followed the equator, sometime passing north and sometimes passing south of it; meaning they crossed the planet at its widest point. The *Pacific Clipper* passed through fifteen cities — not counting origin and destination cities — and touched down on five continents while crossing three oceans. Here is the complete annotated itinerary:

Schedule Flight:

- San Francisco (Departs December 4, 1941) Flying time SFO/HNL ... 22’58”*
- Pearl Harbor (Hawaii) ..........................................................HNL/Canton 12’57”*
- Canton Island (U.S, British) ..............................Canton/Suva 8’38”*
- Suva (Fiji, British) ..............................................................Suva/NOU 6’13”*
- Noumea (New Caledonia, French) ............................NOU/AKL 7’43”*
- Auckland (New Zealand spent over a week awaiting orders from Pan Am NYC) Improvised flight home .................................................. AKL/NOU 8’10”*
- Noumea (return to evacuate Pan Am personnel, Dec.16, ’41 ......................... NOU/Gladstone 6’36”*

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With all the Clippers accounted for, Pan Am remained engaged in the war through the Naval Air Transport Service (NATS) which took over control of most of its fleet of Flying boats, and the Military Air Command took over much of its land based aircraft, as discussed previously. Nevertheless Pan Am was still very much engaged in the war with Japan through its affiliation with CNAC.

With fall of Shanghai in 1937 and Hong Kong in 1941, the Japanese soon sealed off all of China’s seaport cities. The Japanese were trying to strangle the Chinese into submission. The Chinese however were able to hang on because of aid flowing from the Soviet Union over the old Silk Road in Northern China and through Kazakhstan. The Japanese however kept tightening the noose. Pressure was put on the Russians to cut off aid to the Chinese, and with the Wehrmacht knocking on the doors of Leningrad, Moscow, and Stalingrad, Stalin signed a Neutrality Pact with the Japanese in 1941 which brought an end to their aid to China. There were still some supplies from the Americans coming through Burma as the route from Hanoi in French Indochina was soon under Japanese control. CNAC had been flying supplies from Hanoi

* All flying times taken from facsimile of aircraft log, The Long Way Home, Dover & Ford, 74.

to China up till that time. The Burma Road was the only lifeline left, and without it, China was sure to capitulate. Fortunately for the Americans it was in the hands of the British. The British however, were in an analogous situation to the Russians. They were being pressured by the Japanese to close the Burma Road. With more than they could handle in Europe, the British caved in to Japanese’s demands and closed the Burma Road for a while, only to reopen it after Japan declared war on them in 1941. The road was primitive and circuitous and after the Japanese invasion of Burma in December 1941, the Burma Road became a liability. William Langhorne Bond the indomitable Pan Am manager in charge of CNAC’s operation insisted that China could be sustained by air. At the time, this was a novel and untested approach. Considering the obstacles, Bond’s suggestions sounded ludicrous. By this time Bond, his pilots, and maintenance staff were near exhaustion from flying evacuations, dodging Japanese pursuers, and by pressures exerted on them by the Nationalist’s government to ferry Chinese troops around the country. Bond needed time to reassess his airline’s operational priorities. The airline business, as we understand it, was non-existent in China and Bond ordered a two day stand down in order to give his people some rest and time to reflect about the future.\textsuperscript{109} It didn’t take long for him to reset his priorities. CNAC would focus primarily on carrying freight rather than passengers. It all began with the Japanese invasion of Burma. Claire Chennault’s Flying Tigers, the American volunteer group (AVG) of fighter pilots who were tasked to fight for the Chinese before America’s entry into the war, decided to meet the challenge of the new Japanese front in Burma. Chennault assigned one of his squadrons to cover the Burma Road and the other two moved to Kunming (capital of Yunnan province adjacent Burma). Kunming was also the end of the Burma Road that originated in Lashio, Burma. By December 18, 1941 Bond and his people were ferrying Chennault’s Flying Tigers’ ground support equipment and staff from Burma to Kunming.\textsuperscript{110}

\textbf{Flying the Himalayas, India to China, aka Flying the “Hump”}

Flying the “Hump” was the first sustained combat airlift in history, and some argue the largest and most successful. From 1942 – 1949 over 740,000 tons of supplies were delivered over the most rugged terrain and through some of the world’s worst weather systems. The aircraft by today’s standards were primitive and limited in their capabilities. Not to mention the constant

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\textsuperscript{109} Crouch, \textit{China’s Wings}, 262-3.
\textsuperscript{110} Ibid., 263.
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threat presented by Japanese pursuit planes.\textsuperscript{111} It was the determination and dedication of the brave group of pilots that came for the most part, from the commercial aviation sector that sustained the operation.\textsuperscript{112} Supplying China in their struggle against the Japanese had such a high priority that it was directed from the White House.\textsuperscript{113} The Chinese had to be kept in the fight because they were tying down close to one million Japanese troops. Flying the hump became a priory and by 1942 it was turned over to the U.S. Ferrying Command, part of the Air Transport Command. It all began however with William Longhorn Bond and his CNAC (Pan Am) pilots who pioneered the routes through and over the Himalayas. It was all Bond’s idea and he and his pilots demonstrated that it could be done and how to do it. In John D. Plating’s definitive and authoritative work on the “Hump” he describes it thus:

Fortunately for Arnold, [Commander of the Army Air Corps during WW II] he did not have to devise this air route from scratch, thanks to the efforts of the China National Aviation Company (CNAC), a commercial airline jointly owned by Pan American airlines (sic)\textsuperscript{*} and the Chinese government… In 1940 though, the organization began regularly scheduled freight operations, an important transition considering the part it would play in pioneering the Hump route of flight. Anticipating the fact that China might one day be isolated from supplies delivered from Burma. William Langhorne Bond, the company’s operation manager began exploring options to keep China connected to Rangoon. Bond was fiercely committed to China’s welfare, technically in China as a Pan Am employee; he resigned from the U.S. half of the company in 1937 and became a full time employee of the Chinese part of CNAC to alleviate neutrality concerns of the Japanese.\textsuperscript{114}

Bond whose resignation from Pan Am was merely a political ploy to release the U.S. government and Pan Am from wartime liabilities vis-à-vis the Neutrality Act. Bond always remained on Pan Am’s books.\textsuperscript{115} The task, however, of assuring U.S. officials of the merits of his idea wasn’t all that simple. The investment and commitment of the United States government to the effort of supplying China all of its war materiel needs was a major investment in time, money and resources. The U.S. Army sent a team of advisors to assess the viability and liabilities of this proposed route. After all the terrain, weather, and lack of technology made the route a formidable challenge. More so, when one thinks of the Japanese commitment to strangle the Chinese by

\textsuperscript{111} Plating, The Hump, 1.
\textsuperscript{112} Ibid., 61.
\textsuperscript{113} Ibid., 36.
\textsuperscript{*} Pan American Airways or Pan American Airways System but never Pan American Airlines.
\textsuperscript{114} Plating, 36-7
\textsuperscript{115} Crouch, China’s Wings, 106-7
cutting China off from all outside support. Another problem was the question of the willingness of the Indians to cooperate in the effort to supply China from their base. India, at the time, was in the throes of Gandhi’s anti-British policy of non-cooperation. The U.S. as an ally of Britain made the prospect of Indian labor and assistance problematic.\textsuperscript{116} The Army Air Force leadership were indeed doubtful that this type of operation, considering the problem cited above, was realistically feasible. Their team of advisors gave a negative assessment in their feasibility report.\textsuperscript{117} Stanley R. Hornbeck, the State Department’s Far East adviser jumped into the fray by writing the following memo in May of 1942:

Defeatist pronouncements …originate for the most part with people who sit in headquarters and make estimates…Mr. Bond, who, on the basis of practical experience, firmly believes that the thing can be done and, while admitting that it may be proven impossible takes the position that he would not admit it to be impossible until it had been so proven by actual trial for the making of which he has volunteered his own services, and those of the seasoned organization he directs.\textsuperscript{118}

The Pan Am manager was determined to make it happen and his pilots and staff were fully behind him. Although the “Hump” flying was firmly in the hands of the U.S. Ferry Command, Bond and CNAC continued to fly the route. When the AVG was disbanded in July of 1942, CNAC would get sixteen of its pilots.\textsuperscript{119} Although Bond was trying his best to accommodate the U.S. military’s needs, he often met resistance and hostility. The relationship between Bond and the U.S. military would turn sour. General Stilwell, the American commander in the China Burma India Theater (CBI), believed he should have direct control of CNAC’s operation, since most of their aircraft had been allocated to them through Lend-Lease. Bond had to set the General straight that CNAC was a Chinese entity founded under Chinese law and the U.S. military were not as capable as he was in running the airline. Stilwell admitted as much in his diary. Gregory Crouch in his “China Wings” refers to Stilwell’s diary to make his point:

The rains of the southwest monsoon soaked Assam and Burma through the summer, as they had done since the middle of May, and the steady downpours turned unimproved roads and runways into quagmires. Water condensed in fuel trucks and carburetors, and it was instrument flying most of the war from Dinjan to Kunming. The vile weather near grounded the Tenth Air Force’s newly formed India – China Ferry Command – the unit with which it intended to prosecute the Hump airlift. CNAC flew regardless, carrying much heavier payloads. General Stilwell noted in his diary, “No

\textsuperscript{116} Plating, 39.
\textsuperscript{117} Ibid., 38-9.
\textsuperscript{118} Ibid., 38.
attention to capacity, CNAC 4,700 lbs., USA, 3500 lbs. CNAC flying regularly when weather keeps us grounded.” Ferry Command had 35 planes and flew 73 tons into China in July; CNAC flew 136 tons, using 9 aircraft.\textsuperscript{120}

In spite of Stilwell admission that CNAC was much more productive and skilled in their operational performance, he continued to press General Arnold for more authority over CNAC. These types of jurisdictional problems are not uncommon in war, but when the military comes in conflict with civilian assets at the front, sparks will surely fly. There were also questions of morale problems among the pilots of the Ferry Command outside of CNAC. It seemed that there was some animosity between the military and the civil pilots over competency. For our purposes it is important to look at this issue, because it highlights the difference between both groups and clearly demonstrated the importance of commercial aviation in the war. The context, within which the comments were made however, should be kept in mind and not extrapolated to the present day. Plating explains it thus:

Furthermore, the 1\textsuperscript{st} ferry group had to wrestle with the peculiar problem caused by the fact that its most experienced flyers were civilian airline pilots who were called to temporary military service, while those pilots who were “Regular Army” often had little flight experience. This breech promoted bickering between the two groups, seen in the remarks of one experienced civilian pilot: “it seems also that there is a lot of animosity toward the airline pilots by ranking army men over here caused by the fact that they realize we have considerable \{sic\} more experience in air transport problems than they possess and are afraid maybe we will replace them. The moral [morale problem] is the airline pilots cannot reconcile themselves to the incompetency of army management after seeing the efficiency of the airline operations and there will be friction and wasted effort as long as this condition exists.”\textsuperscript{121}

Considering the horrendous conditions under which all of these pilots flew, a great tribute is due to all of them. The point however is made of the importance of civilian aviation and the people who fly and man the aircraft and their significant contributions to the nation in war and crisis. Their experience and professionalism was unquestioned then, as it is now.

The Hump airlift is described by Gregory Crouch as “another one of the greatest aviation accomplishments of all time”\textsuperscript{122} It would serve as the model for the Berlin Airlift, and it was all attributed to the determination, perseverance, and hard work of William Langhorne Bond, Pan

\textsuperscript{120} Crouch, \textit{China’s Wings}, 289-90.
\textsuperscript{121} Plating, \textit{The Hump}, 97.
\textsuperscript{122} Crouch, 385.
Am Managing Director of CNAC, and his team of dedicated pilots and ground staff. No other American civilians, during WW II, were involved in the war and served longer in a war zone than Bond and his people. CNAC, although a Chinese corporation, was under the total operational control of its minority owner Pan Am, and under the more than able leadership of William Langhorne Bond. They saw the war through with enough dedication, bravery and professionalism than most, and were lucky to come out alive. Under Bond’s direction CNAC flew the Hump over 35,000 times and carried ten percent of all the cargo flown. Bond served in the war a total of eight years from 1937-1945 and would return to China a second time to take over the reins of CNAC until 1949. On his final return to the States, Bond was promoted to a Vice Presidency at Pan Am. In May 1977 Bond’s oldest son, Langhorne M. Bond became the FAA Administrator under President Jimmy Carter. Bond died on his farm in Virginia in 1988. Chuck Sharp returned to the States and flew with Pan Am until his retirement. Hugh Woods, whose CNAC aircraft was shot up by the Japanese killing all but Woods, another crew member, and one passenger, retired to Florida and passed away peacefully in 1979.

Testimony from a Pan Am Radio Operator

After completing this chapter I received an interesting and relevant email from a Pan Am website of former Pan Am employees. It was from Dick Edwards a retired Pan Am radio operator from the flying boats days. It’s an opportunity to share a rare buy original source. For our purpose in gives us an insight into navigation by radio, and the three attempts that the overloaded Philippine Clipper made trying to take off from Wake Island, while evacuating the Pan Am employees. Edwards also mentions the ferrying of aircraft (part of the Lend Lease program) to Britain and the Soviet Union that was mentioned previously. Edwards also corroborates for us the fact that some army crew members weren’t properly trained as pilot/navigators using the words “woefully untrained.” Here is the original and unedited email as received:

I started with PAA [Pan American Airways] MIA April first 1942. At the time, we were flying seaplanes throughout the Caribbean, and the north and east coasts of South America. PAA’s Facilities and airport construction division was busily building staff houses for crews in places like Port of Spain and Belem to get us out of the god awful hotels in those places. They were also building airports across the northern coast of South America so that PAA’s Air Ferries group, and

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123 Crouch, China Wings, 384.
124 Ibid., 284-89
the Africa Orient Div -- later the military-- could get their bombers and supplies across to Africa. When the airports were complete, we switched our commercial operations from seaplanes to DC-3s on the route from Miami to Rio. An interesting side light --I can relate to the crew of the Martin M130 making three tries before they could get their overloaded airplane airborne from the smooth water of the lagoon at Wake Island. My first and only trip on the M130 required two tries before we could get off the water in Panama. Why? It was an early morning takeoff and the water was to smooth! For our second try we zigzagged back and forth across our intended take off path back to our original starting point --allowing the over-heated engines to cool in the process-- and on the second try, over the now roughed up water, we got airborne! The crew’s takeoff problem at Wake was compounded by excess take-off weight, some of which was burned off during the first two aborted takeoffs!

Another interesting fact regards the Army’s Air Corp taking over the ferrying of bombers and supplies across the northern coast of South America to Natal, Brazil for the ocean hop across to Africa. In general their flight crews were woefully untrained, especially in navigation. One late afternoon while en-route from Sao Luis to Belem, Brazil in a DC-3 I got a message from PAA’s radio station in Belem saying that an Army plane en-route from Cayenne to Belem was reporting itself lost and in need of assistance. The Army plane was communicating with Belem on 5192.5 and 3105 voice. We did not have voice transmitters on our airplane -just CW (Morris code) transmitters! We had two receivers available on our DC-3, one used for navigation and one for communications. I took the manually operated “Loop Ant” from the navigation receiver and connected it to my communications receiver so that I could try to take bearings on the Army plane when they transmitted on their voice frequencies (5192.5 and/or 3105) to the Belem ground station. Those two frequencies are very poor --at best-- for taking accurate bearings! Never the less, at planned intervals, I would get the ground station in Belem to ask the Army plane to provide a long voice transmission and I would try to “fix” their location. We had arrived at Belem but instead of landing began to circle the airport while I worked out the navigation problem – eventually I was able to determine a pretty general “fix” on the Army plane and to give them guidance into Belem. We continued to circle Belem until I was sure that the Army plane was truly on a track to Belem, then landed --somewhat after our authorized “be on the ground no later than one hour after official local sunset”!! The late landing was easy to justify to the CAA! (Civil Aeronautics Board) We learned the next morning, when we arrived at the airport for our early morning departure that the Army crew had gotten in OK. It is a little known story that the Army lost a large number of airplanes over this part of their route from Miami to Natal because the navigation aids were so primitive; and the crews so ill prepared for the problems. Hope you find these tidbits interesting. Dick E.125

125 Dick Edwards, Pan Am and National Airlines Alumni<mail@panamnationalalumni.ning.com: July 8, 2012
The World War II model of cooperation between U.S. civil aviation and the military served the nation well. It was all based on the voluntary nature of the relationship, one in which the civil air carriers with their trained and highly experienced crews and employees, were left to do what they do best. The airlines would maintain operational control of their aircraft and employees while the government maintained mission control. This may not have been exactly the WW II model, but it was close enough to have formed the basis for the future and more formal working relationship that would develop. It was not by any means a smooth transition, as we shall see in the next chapter. The voluntary nature of the relationship first brought about by Edgar Gorrell however, who prevail in the end. We return to the chronological development of the CRAF in the next chapter.
CHAPTER THREE

HISTORY AND BACKGROUND II – BERLIN TO 1990

This chapter continues with the pre-CRAF history of civil aviation and its partnership with the military during the nation’s wars. It begins with the Berlin Airlift, and continues with the Korean War, the Vietnam War, and the Yom Kippur War right up to the Persian Gulf War of 1990-91. It describes how over time that relationship developed into the modern day Civil Reserve Air Fleet (CRAF). It also expands on the concept of ‘airlift’ and the national airlift policy. The chapter ends with a formal description of the nature and structure of the CRAF, as it was just prior to its first activation in August of 1990.

The Berlin Airlift (June 1948 - July 1949)

The Berlin airlift, “Operation Vittles,” was a military not a commercial operation, and therefore does not ostensibly further our argument. The Berlin airlift, however, is the standard that demonstrates the tremendous potential of airlift to affect a positive political, military, or humanitarian outcome. Recognized as the single largest airlift in history up to the CRAF operation during Desert Shield/Desert Storm, the Berlin Airlift remained the litmus test by which all other airlifts were measured.* Another reason for discussing the Berlin Airlift is because civil aviation did in fact play a supporting role as we shall see.

In an effort to cut off the life-line to West Berlin which flowed through Soviet controlled East Germany, the Soviets cutoff all access points into the city. The blockade of West Berlin in 1948 was one of the first salvos fired in the Cold War. The move was intended to force the Allied Powers, Britain, France, and the United States, to abandon Berlin to the Soviets. Berlin was located totally within the Soviet sector of East German, but as the former capital of the Reich it was occupied by the four victorious powers. Although the Soviets interdicted all traffic on the highways, railways, and waterways linking West Germany to Berlin, they were not in a position to close the air corridor into the city. If the Allies were to retain control of Berlin and keep the

* Various criteria are used to measure the extent of the three major airlifts in history: The ‘Hump,” Berlin, and Desert Shield/Desert Storm; they are. distance, total tonnage, and duration. Desert Shield/Desert Storm for example was the longest distance flown, but the shortage period, however, it included large troop movements which the other two did not. Thus different opinions are held on the extent of each airlift, as to the largest, longest and most miles flown.
population from starving, their only option was by air. The challenge was to feed, fuel, and keep other necessities flowing into the city to prevent a major catastrophe and to break the will of the Soviets. The population of West Berlin at the time was roughly 2.5 million people; so the challenge was enormous. An airlift of such magnitude was never tried before, except in the case of the “Hump” flying which kept China in the war (discussed above).* As an occupied city, the three of the four sectors in West Berlin were governed respectively by French, British, and American military governors. While the Soviets controlled East Berlin and all of East Germany.

French and British military and commercial aviation contributed, on a lessor scale to the airlift of supplies into the city. The lion’s share of the “lift” however, was carried out by the Americans. U.S. military transports, by then renamed Military Air Transport Services (MATS), flew most of the missions. The military believed the risks of flying-in to a ‘war-zone’ were too high for commercial airlines.126 It was not so much out of any concern for the safety or wellbeing of the civilians flying commercial aircraft. The issue was over contracting the commercial carriers or militarizing them. The debate carried on by the Air Force and the Air Transport Association lasted through the operation and was never completely resolved.127 The distance from West Germany into Berlin was relatively short and the intense schedule that had to be flown required incredible discipline. Besides having more control over the operation, the military had sufficient airlift to sustain the operation. We do know however, that some civil carriers like American Overseas Airline (AOA), Seaboard & Western, and Transocean Airlines made flights into the beleaguered city. Captain Jack O. Bennett of AOA and later Pan Am was credited with flying the most missions during the operation – 650, and is recognized as having made the first relief flight.128 Sources estimate the total contribution of civil aviation into Berlin was around 2500 flights.129 Nevertheless the Military Air Transport Service is due the major share of credit for saving the city.

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* The last General in charge of flying the “Hump”, Gen. Tunner, was put in charge of the Berlins Airlift and he handpicked twenty of his former colleagues. The Berlin Airlift is forever linked to the “Hump,” and we could rightfully credit its success to the experience of those who served in China-Burma-India Theater of WW II.

126 Serling, When the Airlines Went to War, 285
127 Crackel, History of the Civil Reserve Air Fleet, 55-56.
129 Crackel, 60-61.
On the other hand, the ‘airbridge,’ as it was called, could not have been sustained without civil aviation flying the transatlantic sector – the longest. In order to keep the military’s aircraft aloft, spare parts including engines and wheels had to be flown in from the continental United States. Pan Am, Seaboard & Western, and Alaskan Airways flew the transatlantic portion between the United States and West Germany. The Berlin Airlift was recognized, until Desert Storm, as the largest and most intense airlift in history, and remains to this day – considering the limitations and capacities of the aircraft of those days – a phenomenal achievement and most definitive demonstration of the enormous potential and effectiveness of airlift. (see footnote page 60)

The Korean Airlift (June 1950 – July 1953)

The Korean War was a short (1950-1953) and geographically limited conflict, but it caught the United States unprepared. It began on June 25, 1950, when the Soviet sponsored North Koreans invaded the South. The U.S. was still gearing down from the World War and focused on the rebuilding of war-torn Europe. The Cold War was well underway, and in spite of the WW II experience, and the recently successful Berlin airlift, the U.S. military came up short on available airlift capacity. The Military Air Transport Service (MATS) suffering from major cut backs had only 60 C-54s available. The C-54 was the military version of a DC-4 – a four engine civilian aircraft made by the Douglas Corporation. The Korean War was a reminder that the U.S. military still lacked sufficient air transports, and U.S. civil aviation would again have to step up to the plate. This time there was no executive order or ATA plan of mobilization. The carriers volunteered their aircraft and crews adding an additional 64 transports. The two major transpacific carriers, Pan Am and Northwest along with United, and Trans-Ocean, a supplemental carrier, flew ‘MATS’ charters for the military, primarily from Travis Air Force Base in California. The flights went to Japan which would remain the primary staging point for troops and materiel bound for the Korean peninsula. The military transports flew the major portion of flights between Japan and Korea. The efforts of commercial aviation represented forty percent of all support flights. This figure tallied up to 70% of the troops, 50% of the cargo and 70% of the mail flown. One carrier alone, Pan Am, carried over 114,000 troops, and over 30

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130 Reeves, 40.; and Crackel, 60.
131 Serling, When the Airlines Went to War, 284-285
million pounds of cargo across the Pacific.\textsuperscript{132} This operation moved the Congress to amend the Civil Aviation Act of 1938 to provide federal insurance for commercial airlines flying into a war zone. This move would have a significant impact on the CRAFT operation during Desert Shield/Storm which we will discuss later.\textsuperscript{133} As a matter-of-fact, it was the Korean War which prompted President Truman to take action in solving the nation’s need for airlift during war and times of national emergencies.\textsuperscript{134}

The military, in spite of the WW II experience – but in line with the Berlin Airlift policy – was against commercial air carriers flying in to a war zone.\textsuperscript{135} All that would change with Vietnam.

**Vietnam Airlift (1961-1975)**

Jumping ahead to Vietnam interrupts our chronology, but remains consistent with our look at the role of commercial aviation in support of the U.S. military outside of the CRAF program. Although the concept of the Civil Reserve Air Fleet saw the light of day in 1951, it was not until 1959 that an actionable plan was available. Commercial aviation played a major role in supporting the Vietnam airlift. The Civil Reserve Air Fleet was nine years old in 1961 when President Kennedy significantly increased the number of U.S. military advisors to Vietnam. This move usually marks starting point of U.S. involvement in Indochina. The military buildup of forces in Vietnam took place in spurts, peaking between 1968-1969 at about 540,000 troops.\textsuperscript{136} The drawdown of troops would also take place over several years. The phenomena were alternately described as escalation and de-escalation. There was no urgency to the military buildup and no lack of U.S. air carriers volunteering their service via the long established MATS charter-flight program. Thus the CRAF was never activated. The large scale buildup in Vietnam began in 1964 after the Gulf of Tonkin Resolution.\textsuperscript{*} At its peak, there were twenty three U.S. commercial air carriers hauling troops across the Pacific. By 1968, 91\% of the troops and 24\% of the military’s cargo were carried by civil aviation.\textsuperscript{137} No amount of written policy statements on

\textsuperscript{132} Serling, *When the Airlines Went to War*, 286.
\textsuperscript{133} Ibid.
\textsuperscript{134} Ibid.
\textsuperscript{135} Ibid., 285.
\textsuperscript{136} Crackel, *History of the Civil Reserve Air Fleet*, 145
\textsuperscript{*} Gulf of Tonkin Resolution August 1964, Gave the President (LBJ) authority to use military forces in S.E. Asia without formal Congressional approval.
\textsuperscript{137} Crackel, 146.
airlift, demonstrates more definitively, the crucial role commercial airlines play in the country’s national defense.

More than hauling troops across the Pacific, one U. S. air carrier even flew Rest and Relaxation (R&R) for U.S troops from Saigon, Camranh Bay, and Danang – during the war – to several destinations. Pan Am carried U.S. troops on leave to places like Hong Kong, Honolulu, and Bangkok. Pan Am also flew the last U.S. flight out of Saigon as the city – and the airport – was falling to the North Vietnamese regulars. The B-747 was full of the Vietnamese employees of Pan Am and their families. Overloaded with people who were standing in the aisles and occupying the lavatories, the dramatic scene was made into a movie starring James Earl Jones and Richard Crenna. The crew was made up of volunteers and they barely escaped with their lives.\footnote{Pan Am R&R Schedule (Timetable) December, 1968. (Courtesy of Pan Am Historical Society)}

The CRAF – from Conception to Reality

On February 28, 1951 President Harry S. Truman issued Executive Order 10219 in which he tasked the Department of Defense (DOD) and the Department of Commerce (DOC) to work together in setting up a Civil Reserve Air Fleet.\footnote{Brown, History of the Civil Reserve Air Fleet (1952-1986), 12.} The executive order set the basis for developing the structure, organization, and command of a reserve air-fleet made up of aviation assets from commercial aviation to augment the Military Air Transport Service in times of national emergencies. The use of the word augment over supplement would become the choice of military planners henceforth and will be used from hereon. The executive order was not issued in a vacuum. There were several major studies on the mobilization of civil aviation during national emergencies. In 1948 the President’s Air Policy Commission recommended:

\begin{quote}
Advantage should be taken of our World War II experience in working out in advance the required coordination between the armed services and commercial airlines. Contract arrangements specifying the equipment and services to be furnished to the Military Air Transport Service by the airlines should be made now with the commercial carriers.\end{quote}

These recommendations formed the basis of a study to be conducted by the National Security Resources Board (NSRB). In December 1950 the NSRB issued its report called “Report on Utilization of Airlines for Wartime Airlift and Proposals to Aid Expansion of the Civil Air


\footnote{Brown, 10.}
Fleet,” also known as the “Douglas Report.” The Douglas Report favored the contract option over militarization which was a matter of contention with the Air Force. The dispute delayed an agreement between the air carriers and the government, and would continue to prolong the process during its early developmental stage. In January of 1951, Undersecretary of the Air Force, John McCone tipped the balance in favor of the contract solution citing the example of WW II and the success of the then ongoing airlift in Korea.\(^{142}\) In spite of this preference some Air Force brass, including General Lawrence Kuter who headed MATS and had directed the Berlin Airlift, were still against the contract solution. Kuter preferred the militarization of the airlines, at least part of the airlines necessary to augment MATS. The airlines were greatly concerned with Kuter’s hard line and feared militarization. This prompted the NSRB to lobby the president to issue the executive order.\(^{143}\) Kuter then set up an ad hoc Study group to examine the mobilization of civil air carriers in order to compete with NRSB’s plan. His group also considered the militarization option. In September of 1951 the NSRB issued its final plan which accepted the structural format put forward by Kuter’s (MATS’) Ad Hoc Study group, but on a contract basis.\(^{144}\) It was obvious that Executive Order 10219 was not the end of the matter, but only the beginning. In December of 1951 a memo of understanding was signed between the Secretary of Defense and the Secretary of Commerce establishing the Civil Reserve Air Fleet (CRAF). The CRAF was formally a paper entity.\(^{145}\) Still to be worked out were: “contracts, logistics, support, aircraft modifications, manpower, training, operational structure, number and types of aircraft, and all would prove to be contentious.”\(^{146}\) There were many technical problems, and in order to fully appreciate the depth and complexity of these problems one must reflect back to where and what civil aviation was all about in the early 1950s. Technology would erase many of these problems in the future, but at the time they presented some real challenges. The planned fleet that was to make up CRAF was comprised of four different types of aircraft from three different manufacturers; the civil fleet was composed of: 44 DC-4s (Douglas), 11 DC-6s (Douglas), 24 L-1043s (Lockheed), and 12 B-377s (Boeing). The logistics of spare parts and support equipment, in addition to aircraft modifications, all had to be planned and spelled out contractually. Manpower was another complex issue. For example, many pilots and airline

\(^{143}\) Ibid., 68-69.
\(^{144}\) Ibid., 70.
\(^{145}\) Ibid., 85.
\(^{146}\) Ibid. 85.
support personnel were military reservists. What would happen to them during a call up? Would they report to their military units where they were needed, or would they stay with the CRAFT operation where they were likewise needed? There was also a severe shortage of qualified navigators for transoceanic flights since most of the contributing carriers to CRAFT were domestic airlines whose navigational needs differed greatly from over water-carriers. How do you fill the shortage? Working these problems out would be what transformed the CRAFT from a ‘paper entity’ to a working reality. A cursory look at these problems would be helpful in understanding the extent to which the airlines and MATS went to in working out solutions.

The concept on the organizational structure presented some difficulties. Initially the military tried to impose military type organizational units in which all the reservists working for the airlines would be assigned. Upon activation a reservist would report to one of three regional Air Transport Wings at: Travis AFB California, McGuire AFB New Jersey or West Palm Beach AFB in Florida. The Air Force Transport Wings all came under MATS’ direct control and would have operational control over the CRAFT. Within each Air Force Transport Wing the airlines reservists would in essence still be working the CRAFT, but not necessarily with their own airlines. The problem of course, was that the reservists were separated from their airlines, and the type aircraft equipment they were qualified on i.e. their area of expertise. In addition, the individual air carrier was fragmented by the separation of their qualified personnel. In a national emergency a reservist would be called up and lost to the carriers. Lumping them together into a military unit, although an Air Transport Wing was not the most efficient option. Eventually it was decided that they would be called up to active duty but would remain with their air carrier assigned to the CRAFT operation. The simplest solution was the most logical one.

Another organizational plan called for a Senior Operator, in which one carrier, depending on the locale, would be designated Senior Operator. Assets from participating carriers would be pooled under the local Senior Operator. This had the same effect as separating the people from their airlines – fragmentation all over again. The next try was to setup two divisions: Atlantic and Pacific and allocate the airline assets accordingly. This was perceived in some legal quarters as violating antitrust laws. It would take the Civil Aeronautical Board (CAB) six years to rule on the case. In 1959 the CAB ruled it did not in fact violate anti-trust laws so technically CRAFT was in business.\footnote{Crackel, \textit{History of the Civil Reserve Air Fleet}, 13-15.}

Another problem had to do with the shortage of transoceanic navigators. In 1952
the need for CRAF navigators was estimated at 1,100. The transoceanic carriers only had about 500 on staff. One proposal was to train pilots as navigators but since there weren’t enough pilots with the international carriers to fill the quota, domestic pilots would have to be trained. The problem with this solution was that in order for a navigator to remain current, he had to fly the routes routinely. Another solution was to hire as many available navigators as possible at the outset of the CRAF activation. As they still would have to be trained and qualified before the activation of CRAF to be of any use, it too was impracticable. Lastly it was decided to institute a training program for inactive Air Force reservists to train as navigators and kept current by the Air Force.  

Aircraft modifications presented several interesting problems to the CRAF organizers. The kind of modifications that had to be made on commercial aircraft to suit the military’s needs vary greatly, but here are some: Domestically fitted aircraft had to have certain equipment installed to ready them for transoceanic service. The same aircraft had to be fitted with a special opening which allowed the navigator to take a fix (sighting) on the stars – used in celestial navigation. The flooring on passenger aircraft had to be reinforced to carry heavier loads than normally carried in commercial operations. Some aircraft had to be fitted with an additional cargo door along the fuselage to be used when and if a passenger configured aircraft were changed to all cargo ones. Additional tie rings also had to be installed to attach cargo straps in order to secure heavier cargo loads. On the government’s side, there were some internal problems concerning which Air Force agency would handle the modification contracts. From the airlines’ side the problems were several: at the time some airlines were sloppy in their record keeping, and were unable to provide the Air Force with accurate records on the various aircraft configurations used within their own fleets. This slowed down the contract process until the airlines could produce specific and accurate records. Aircraft pulled from service for modifications cost the airlines money, and jeopardized their market share which could threatened their hold on a particular market. A CRAF carrier could lose a market to a non CRAF competitor. This problem was even more pronounced for the international carriers whose main competitors were the foreign and nationally subsidized airlines. The first solution proposed to the time-lose problem was to make the modifications when an aircraft was pulled out of service for its regularly scheduled maintenance. This greatly slowed down the modification process, so in addition a new proposal

148 Crackel, 17-18.
was made to have the modifications done when new aircraft were being manufactured.\textsuperscript{149} This solved the problem as long as the CRAF wasn’t immediately activated.

Support equipment was another complex problem slowing CRAF development. Support equipment included everything from spare parts (tire, engines, etc.) to ground handling equipment such as on/off loading equipment, tow bars and ground power units; and most importantly, access to fuel supplies. Because of the various aircraft types this equipment can vary greatly. When the CRAF is activated an airline will surely be flying to many offline points in which they have no pre-staged resources. To stage these resources at every possible landing site would be impractical and wasteful. Since no one really knows in advance where a national emergency will require a CRAF aircraft to go, preplanning is problematic. The problem of spare parts and fueling was of a logistical nature and one which would always remain difficult to solve. It remains a problem to this day. Nevertheless one attempt to solve it involved setting up a Senior Lodger program (the international equivalent of the ‘Senior Operator’ discussed above\textsuperscript{*}) where a host carrier is selected from a CRAF member in numerous airport locations around the world. The Senior Lodger is responsible to secure the needed resources for the CRAF fleet and do the necessary stockpiling, including, negotiating local contracts for services deemed necessary.\textsuperscript{150} The Senior Lodger program has never been tested and still to this day does not cover many regions throughout the world.

Most of the problems were worked out over time, and were attributable to the variety of different aircraft types and the many different airline participants in the CRAF program. In most cases however it was the Air Forces’ approach to problem solving which was in conflict with a variety of civilian approaches. The airline executives were always on guard in protecting their assets and their commercial vitality in the market place, not to mention their fiduciary responsibility to their stockholders. At the same time they were aware of their responsibilities in contributing to the national defense. It was a delicate balance. As the solutions and fixes inevitably came about, they would however slow down the CRAF development and hindered its readiness. By the beginning of the next decade technological innovations eliminated many of these problems. For example, in the early sixties commercial aviation entered the jet-age and

\textsuperscript{149} Crackel, \textit{History of the Civil Reserve Air Fleet}, 19-20
\textsuperscript{*} At the international destination the Senior Lodger would have to be a CRAF member which means a U.S. air-carrier)
\textsuperscript{150} Crackel, \textit{History of the Civil Reserve Air Fleet}, 21-22.
with that came new navigational systems like the Inertial Navigation System (INS), which eliminated the need to have a separate navigator onboard transoceanic flights. Jet aircraft had larger passenger and cargo capacities and could fly longer and further than their propeller driven predecessors. Increased lift and range dramatically altered the structural alignment of CRAF as would the entry into the age of the wide-body aircraft types a decade later.

From the historical standpoint these problems were not the reason the CRAF was not activated during the Korean Conflict. The conflict broke out more than a year before Truman’s executive order creating the CRAF was issued. More significantly, the airlines volunteered more aircraft than needed to produce the required airlift. In so doing, they made a strong case, as in World War II, that the best solution to the problem of the U.S. military’s airlift shortfall was to contract the airlines services on a voluntary basis. The purpose of the CRAF was simply to give an organizational and preplanned structure to the civil component of the airlift equation, and clearly define each carrier’s responsibilities under the program. More importantly the CRAF provided MATS with a fleet of aircraft ready to go on short notice – at no expense unless and until activated.

**The Composition of the CRAF 1952 -1959**

The composition of the CRAF Fleet is constantly evolving as new aircraft types are purchased by the nation’s airlines; and as air carriers are coming into and going out of business. Some air carriers for one reason or another opt into or out of the CRAF program; because of its voluntary nature, and that also has a bearing on the makeup of the fleet. Fluctuations also come about as the nation revised its national defense strategy and adjusted airlift requirements accordingly. That is to say that the composition of the CRAF varies from year to year. The years from 1952-1959 were selected for comparison because they best typify the pre-jet era of the CRAF, and keeps up with our chronological progression. Here is what the CRAF looked like in December 1952: There were twenty-five participating U.S. airlines and a total of 317 aircraft committed to the CRAF. It broke down to:

- 19 B-377s
- 125 DC-4s
- 107 DC-6s
- 66 Constellations.
All were four engine propeller driven aircraft.\textsuperscript{151}

**The Military’s Organic Aircraft and the CRAF**

The 1950s also reflect the years in which the Military Air Transport Service began demanding its own organic fleet of aircraft with inter-theater capabilities, and those more suitable to the military’s distinctive needs. The MATS’ organic aircraft, at the beginning of the decade, were for the most part military versions of commercial counterparts like the C-47s (DC-3) and the C-54s (DC-4) or converted WW II bombers e.g. the B-97 Stratofreighter was based on the B-29. In the case of the military’s C-119 Flying Boxcar, there was an original WWII cargo aircraft which however, was rapidly becoming obsolete. With the advent of the C-124 Globemaster, which was the Air Forces’ workhorse during the 1950s and early 1960s, the Air Transport Command’s demand for specially designed aircraft to meet the military’s specific airlift needs was partially fulfilled.\textsuperscript{152} The most versatile aircraft in the Air Force made its appearance in 1956. The C-130 Hercules, a four engine turbo-prop made by Lockheed, and was designed to meet a variety of military requirements. Its versatility allows it to transport passengers, deliver airborne troops over drop zones, and carry oversized cargo in addition to being able to land on short irregular (crude) runways.\textsuperscript{153} During Vietnam, it was used to drop a massive 15,000 lbs. bomb (Daisy Cutter) to clear landing zones. Today this aircraft has taken on another role, and is popularly known as the C-130 ‘gunship.’ But this workhorse is primarily a transport. We mention this particular aircraft because its unique design is shared with other modern Air Force transports. It is important to understand the unique capabilities of the Air Forces’ organic aircraft in order to properly understand the complexity of the airlift policy. It is the job of the CRAF to augment the Air Force’s fleet of organic transports, but the aircraft of the CRAF are designed for the commercial market. Economy and efficiency of operation are the hallmarks of a commercial airliner and drive its design features. The hallmarks of a military transport are heavy payload capability, efficient unload/offload abilities and short take off/landing on a variety of surfaces. As such, the C-130s, the C-141s, and the C-5s all have high aspect wings, i.e. the wings are mounted on top of the fuselage. This not only allows these aircraft to take off and land on a shorter runway but gives the fuselage a lower aspect – closer to ground. This allows heavy

\begin{thebibliography}{99}
\bibitem{151} Crackel, *History of the Civil Reserve Air Fleet*. 89, 91.
\bibitem{152} Ibid., 85.
\end{thebibliography}
equipment such as tanks and trucks, in the case of the C-5s, to drive on and off without waiting for any ground assist equipment. All of the above aircraft are configured to carry passengers and cargo and are fitted for nose or tail loading. The cargo can be oversized i.e. too big for the standard aircraft pallet or outsized – too large for commercial aircraft – as in the case of helicopters or pontoons for example. There are also cargo loads that are too dangerous for commercial carriers, like high explosives, and missions that are too secret and only the military are equipped to handle. In addition the military’s organic aircraft can and will fly into hostile areas deemed too dangerous for commercial aircraft.\textsuperscript{154} In laymen’s terms we might say that the military’s aircraft does the heavy and dirty work while civil aviation picks up the rest. Thus the CRAF frees up the organic fleet to do what it does best, while the CRAF is tasked to fly the majority of troops to the front, and transport the lion’s share of the more routine materiel. This leads us to Lt. Col. Robert Owens’ second tenet of airlift policy: “the role of the military component of the air fleet is to do what commercial transport aircraft or civilian aircrews cannot or will not do.”\textsuperscript{155} The wording of this tenet clearly establishes commercial aviation’s centrality within airlift policy, as the military’s role is to do only what the airlines are unable or unwilling to do.” The Air Force’s’ organic aircraft compliment the civil aircraft of the Civil Reserve Air Fleet and vice versa. Understanding how they interface allows us to fully appreciate the airlift program. The makeup of the military’s organic fleet has a direct bearing on the CRAF’s composition. As the Air Force is restricted in what it can do by budgetary constraints and congressional funding, the expenses incurred to design, manufacture, and maintain organic aircraft are more than justified.

As the military’s organic fleet grows in numbers so does the need for additional CRAF aircraft. There are two reasons for this anomaly: The first is that the Air Force’s organic fleet has enlarged the scope of airlift capabilities thus increasing the strategic role of airlift. Increasing the capabilities only increases the demand for more airlift. The second reason is that as strategic planning enlarges in scope and complexity so does the baseline (number of troops and cargo to be transported). Lt. Col. Owens puts it succinctly: “No matter how much airlift capacity they create there is always a demand for more.”\textsuperscript{156} With the development of the ‘Base Force’ concept in 1990, discussed above, the demand for airlift dramatically increased as prepositioned troops

\textsuperscript{154} Owens, Airlift Primer, 9.
\textsuperscript{155} Ibid., 8.
\textsuperscript{156} Ibid., 4.
are withdrawn in favor of ‘forward projection.’ The ability to ‘forward project’ troops is the responsibility of the Craf. The Civil Reserve Air Fleet is then locked in for the long term as our nations’ primary transporter of the U.S. military in national emergencies.

**The Craf 1960 -1979**

During the 60s and 70s commercial aviation went from propeller driven aircraft to the jet-age and into the era of the wide-bodied – B747, L-1011, and DC-10s. The composition of Craf kept pace along with technological innovations in aircraft size and design. The era was also dominated by the war in Vietnam and as mentioned above (see Vietnam) the Craf was not activated. Nevertheless the nation’s commercial airlines were fully engaged in the war. U.S. air carriers were performing the same functions they would have been performing under Craf activation. In this case it was done on a voluntary and contractual basis. On January 1, 1966 The Military Air Transport Service – MATS – officially became the Military Airlift Command – MAC.

In spite of significantly larger aircraft, and consistent with our discussions on increasing airlift demands, the primary concern in the 70s was the need for more cargo lift. The demand was attributed to a shift in NATO strategy which put more emphasis on the deployment of additional U.S. troops to Europe.\(^\text{157}\) In 1973 MAC came out with a cargo enhancement program in which the airlines could agree to have their wide-body passenger aircraft refitted to convert to an all-cargo configuration upon activation of the Craf. The primary areas of the enhancement were: reinforced flooring, the installation of a cargo door along the fuselage and adding onboard cargo handling systems. The government would pay for the enhancement and additional expenses to reimburse the carriers for higher operating cost associated with significantly heavier aircraft. Higher operating costs include more fuel consumption associated with the additional weight and more wear and tear on such systems as landing gears and tires, etc. The response among the carriers was positive but Congress would not approve the funding. In 1979 MAC once again sent out the request to the airlines concerning the cargo enhancement program and Congress would approve funding in April 1980.\(^\text{158}\) The request did not receive the same enthusiastic response as previously. The demand for all-cargo aircraft was diminishing. United Airlines did agree however, to have a new DC-10 enhanced at the manufacturer, and in 1983 Pan Am offered up 19


B-747s for enhancement. It wasn’t until 1985 that the first aircraft was completed. Five years later Pan Am would enter the Desert Shield operation with only 18 enhanced 747s. The nineteenth B-747 was the aircraft Pan Am lost over Lockerbie in 1988 – Pan Am 103.

Yom Kippur War 1973

There was an important and little known airlift in the 1970s that sheds light on the dangers which commercial air carriers face when working for the military in wartime operations. It also serves as an example of how US. air carriers are asked to “front” for the U.S. government, when the government wants to disavow its involvement in a particular operation. Lastly it clarifies for us the type of operation in which the military’s organic aircraft are best suited. The U.S. military called it “Operation Nickel Grass” and took place within the context of the Yom Kippur War.

The Yom Kippur War was fought between Israel and Egypt and several other Arab states in October 1973. It did not involve the United States Military nor was it considered by the U.S. as a national emergency. There was no reason or cause for the CRAF to be activated and for that reason it would appear that it has no place in our dialog. But the circumstances in which the U.S. civil air carriers got involved demonstrates how U.S. civil aviation can become an instrument of U.S foreign policy and thus has some relevancy for us.

The attack by the Egyptians, on October 6, 1973 caught Israel by surprise, and from the outset things were not going in favor of the Israelis. The threat to the survival of the Jewish state was a reality and the Israelis appealed to the U.S. government for help. They requested military hardware to replenish what they had lost in the initial attack. The need to airlift the requested materiel was of paramount importance as time and distance were not in their favor. There was no question of direct U.S military involvement, but the U.S agreed to honor the Israeli request for aid. The Israeli national air carrier, El Al, could not handle the lift by itself, so they requested airlift support from the United States. Washington feared Soviet intervention should the U.S. get involved; and indeed the Soviet Union was behind the Arabs. The conflict from the military and diplomatic standpoint was another venue in which the Cold War was being played out by surrogates. Washington passed the Israelis over to the U.S. commercial air carriers. The commander of MAC at the time, General P.K. Carlton, recommended that the Israelis charter flights from several U.S. commercial carriers. In this way the U.S. carriers could “front” for the government. Trans World Airlines (TWA), Eastern Airlines, and Flying Tigers were all approached by the Israelis. The air carriers were puzzled as to why MAC or the State
Department did not charter the flights on behalf of the Israelis. Not wanting to get involved in the conflict between the Arabs and Israelis, the U.S. carriers refused the Israeli request. MAC had no choice but to step in and fly the missions, but not before the Soviets, on October 10th, began an airlift of their own to support the Egyptians and Syrians. On October 13, President Nixon ordered MAC to begin the airlift. MAC’s organic aircraft were better suited to fly into that restrictive and volatile airspace, successfully carried out the mission.

The U.S. airlines did however pick up the MAC shortfall by flying MACs normal peacetime routes so that MAC’s organic aircraft could be freed up to fly the Israeli operation. In fairness to the U.S. civil carriers for refusing the Israeli request; they were wary about an Arab retaliation and oil boycott. As a result of the United States’ support of Israel, the Arabs announced a cut back in oil production and Saudi Arabia put a total ban on the sale of oil to the United States. The U.S. air carriers had to be mindful of other retaliatory tactics of the Arabs. It was just three years earlier that Palestinian terrorists hijacked three commercial aircraft in one day, including two U.S carriers: TWA and Pan Am. It was known as Black September and a Pan Am 747 was blown up on the tarmac in Cairo. Considering TWA would have another flight hijacked (TWA 847) in the Middle East in 1985, followed by Pan Am’s 103 disaster in December 1988, In hindsight their refusal to participate in the Israeli airlift, was due to a legitimate fear of reprisals. Moreover it forced the U.S. government to come out of the “closet” and use MAC’s organic aircraft in the manner in which they were intended. Whether publically or privately owned, U.S. airlines are perceived as part of the government, especially outside of the United States. Thus they are choice targets of terrorists, particularly state sponsored terrorists, who are looking for a U.S target. Operating into the Middle East always had its dangers for U.S. airlines. Security issues would drive most U.S. air carriers out of the market. Operating into the Middle East during the Desert Shield, Desert Storm operation would change all of that. U.S. air carriers would again answer the call and take center stage.

**CRAF in the 1980s**

The CRAF enhancement program dominated the 80s, yet in spite of Pan Am interest, most other carriers held off committing to the program. The all-cargo wide-body aircraft were proving

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161 Ibid., 435.
uneconomical for the air carriers. The newer and larger passenger aircraft had sufficient cargo space in the lower decks to meet the market demands of the time. The few carriers that had all-freighter aircraft began shedding them to the supplemental non-schedule airlines. Enhancing a passenger aircraft to a cargo-convertible type may have been advantageous to MAC but did nothing for the airlines’ bottom line.

U.S. troop commitments to NATO were increasing while the U.S. airline industry was suffering under the effects of deregulation. Commitments to CRAF’s long range international segment fell to a low in 1980, 1981, and 1982 before picking up again. On the other hand CRAF’s long range airlift capability – based on million ton-miles per day MTM/D – fell to an all-time low in 1985 and 1986 and only picked up slightly in 1987. MAC’s ability to respond to a national emergency is completely dependent on the well-being of the civil component. When economic hard times plague the airlines, the extent of their participation in CRAF and for that matter whether they participate in CRAF at all, is in jeopardy. Cognizant of this economic reality the government is always trying to sweeten the pot to encourage participation. There are many incentive programs that drive the civil component’s participation in CRAF and that will be described below.

Since the outset of World War II commercial aviation has always been a de facto part of the national airlift policy. The CRAF program established by Harry S. Truman’s Executive 10219 in 1951 set up the structured inclusion of commercial aviation into the national defense strategy as the Civil Reserve Air Fleet became the ‘heart of the nation’s airlift policy.’ During the late 1980s under President Ronald Reagan, national defense took on significantly more importance. The centrality of commercial aviation to the nation’s defense wasn’t forgotten nor taken for granted. But in 1987 President Ronald Reagan revised and emphasized the prominence of commercial aviation and its role in the national defense by issuing National Security Decision Directive – (NSDD) 280 issued June 24, 1987 – which stated:

The United States national airlift capability is provided from military and commercial air carrier resources. The national defense airlift objective is to ensure that military and civil airlift resources will be able to meet defense mobilization and deployment requirements in support of U.S. defense

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Crackle, A History of the Civil Reserve Air Fleet, 193, 195
and foreign policies. Military and commercial resources are equally important and interdependent in

The directive, which has nine clauses, specifies actions to be taken by the Departments of Defense, Commerce, State, Transportation, and other government agencies to ensure the vitality and well-being of commercial aviation. Nevertheless by the end of the 1980s a huge gap existed between national defense needs for airlift and CRAFT’s ability to provide the necessary lift. The enhancement program failed to live up to expectations. The airlines were still in a depressed economic situation due to higher fuel prices, an air traffic controllers’ strike, and the reverberations of deregulation. In 1982 deregulation allowed nearly thirty new airlines to join the market. The long established air carriers were downgrading their fleets seeking economic alternatives to gain or maintain a competitive advantage. The weakness in the system reappeared, and that is, the nation’s airlift policy is dependent on the economic health of the nation’s airlines. This was the state in which the CRAFT found itself. As it entered the 90s, the CRAFT had never been tested.

**CRAFT Incentives**

Participation in the Civil Reserve Air fleet is voluntary. By joining the CRAFT an airline can put itself at an economic disadvantage. When activated the participating air carrier temporarily loses a specified number of its commercial assets to government service, i.e. aircraft, crews, support equipment and other personnel. The loss of assets could result in the air carrier losing market share or possibly losing the whole market to a competitor. This is even more pronounced in the international arena where a foreign competitor will not be a member of CRAF. In light of the economic disadvantages membership brings, the government offers incentives to offset the drawbacks. The incentives are based on a portion of the Department of Defense’s peacetime business. Today the incentive system has been refined to be more responsive to the air carrier’s needs. The incentives work like this: The more aircraft an airline commits to the CRAFT and the earlier the stage of activation (1, 2, 3, or any combination thereof) the air carrier participates in, the more points the airline receives. The points translate into peacetime contracts in which the Department of Defense (DOD) charters a carrier for its transportation needs. Sometimes it’s an all-cargo charter and at other time it could be a passenger flight. The MAC contract charters
usually involve a unit movement e.g. when a complete military unit moves from one location to another as in a unit returning from Iraq to the States. Another form of business the air carriers receive is what’s known as ‘city pairs.’ This type of travel usually involves individuals on government business traveling between two cities where the airfares have been pre-negotiated between the carrier and the government. A good example of both types of travel would be a World Airways flight (MAC Charter) from Iraq landing in Atlanta with 300 returning troops. After clearing U.S. government formalities the soldiers break out individually to catch flights on Delta, American or United Airlines to their home cities (city-pairs) for leave. This DOD business is worth 100s of millions of dollars annually for the CRAF carriers. The air carriers who participated in the CRAF from its earliest days benefitted from the DOD’s peacetime business for thirty-eight years before the CRAF was ever activated for the first time. As a matter of policy this “business relationship” between the DOD and the air carriers is spelled out in one of the clauses of President Reagan’s 1987 comprehensive National Airlift Policy.

The government, and by extension U.S. taxpayers, benefit from the program by having the necessary cargo and troop airlift available when needed. In terms of planning, the CRAF can provide airlift for up to 30% of the military’s cargo and 90% of its troops. The cost savings to the government are even more significant. While it cost the U.S. government 1.5 billion dollars in payment to the civil air carriers during Desert Shield and Storm, over the thirty-eight year period since the inception of the CRAF, the government has saved up to 50 billion dollars by not having to buy, maintain and operate an organic fleet of transport aircraft to fulfill the needs provided by CRAF.

This system works quite well, but is not without its problems. With cut backs in U.S. troops stationed overseas, demands for this type of service are diminishing. Further cutbacks will only continue to reduce the demand for the air carriers’ peacetime services. There will always be a need for DOD travel, but its shrinking market has to be spread out over many competing CRAF participants thus reducing the monetary benefits of the program. Since CRAF participation is voluntary there must be some form of remuneration for the losses incurred when air carriers are activated in a national emergency. Air carriers might derive some public relations benefit for

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165 Ibid., 7.
their participation in the case of activation, as they might be viewed as patriotic and supportive of our troops, but this only goes as far as public relations will take it. Carriers usually do not advertise their participation. In discussing (above) Pan Am’s flying R&R for the troops in Vietnam, what was not mentioned was that their passenger aircraft and civilian crews often took ground fire. Initially Pan Am only charged the government the cost of operations (costs) plus one dollar. It was never advertised and very few people were aware of the fact. Pan Am derived nothing from it. Considering the high cost of operating airlines, breaking even is considered good. If an airline’s bottom line is in jeopardy participation in CRAF will not be a viable option. The viability of the air carriers ensures the continued viability of the CRAF program.

There is of course the ultimate persuader for CRAF participation. Through various War Power Acts U.S. presidents have derived the power to nationalize any industry that is deemed necessary for the national defense in times of crisis. It is of course the last option. The military and the airline industry have, for the most part, agreed over the years that voluntary participation produces a more efficient and effective operation, in addition to being more economical and productive.

The Structure and Makeup of the CRAF*

Earlier we examined the composition of the CRAF and discussed its continuous evolution in response to new aircrafts, technologies, and the ever changing political and defense requirements. Here we will focus on the structural element of the CRAF program and update the composition of the CRAF as it was just prior to its first activation in 1990.

The CRAF is a voluntary and contractual program between the U.S air carriers and the Department of Defense wherein the air carriers commit a set number of aircraft along with operating crews, support equipment, and personal to the DOD in order to meet the nation’s airlift requirements in times of nation emergencies. The CRAF has three stages of activation depending on the seriousness or the level of the emergency. A set number of aircraft are committed to each of the three stages. Four operating crews for each aircraft must be available. So that one B-747 which has three operating crew i.e. pilots, would require 12 pilots for each aircraft committed to the CRAF. An air carrier may agree to belong to only one or two or all three stages. Stage I can be activated by the Commander-in-Chief of the U.S Transportation Command (CINC

166 Email of confirmation from former Pan Am VP Corporate communications, Jeff Kriendler@aol.com

* August 1990 – at the time of CRAFT’s first activation
In Stage I the air carriers are committed to provide 38 aircraft and have 24 hours to be at a designated location. Stage II can be activated by the Secretary of Defense and requires the air carriers to produce 187 aircraft including the original 38 from Stage I. Stage III may also be activated by the Secretary of Defense but only after a national emergency is declared by the President or Congress. In Stage III the air carriers have to produce 506 aircraft and have 48 hours to be at their assigned locations. The CRAF was further divided into five component parts (mission segments) of varying aircraft types:

- Long range international – aircraft with extend over water capabilities - Transoceanic
- Short range international – aircraft with medium offshore capabilities – offshore islands
- Domestic – narrow bodied domestic aircraft
- Alaskan – aircraft equipped for severe cold weather operations
- Aeromedical – wide-body aircraft converted for medical evacuation – inter-theater and long range. (B767s)

The CRAF has both a military and civilian structure. The CRAF operation is managed out of Scott Air Force Base in Illinois. Each air carrier maintains its own internal CRAF structure out of its operation’s center. While the air carrier maintains operational control by operating the aircraft, providing the crews, maintenance, and fuel, the Air Force (MAC) maintains mission control. The aircraft are committed to the CRAF by specific tail numbers (registry number). An air carrier may swap a registered aircraft for another in order to fulfill its commitment. The various quantities of aircraft committed to each stage are divided between cargo and passenger.

This was the makeup of the CRAF in the summer of 1990 just before the outbreak of hostilities between the U.S. led coalition and the forces of Iraq. Never had the CRAF been activated in its thirty-eight year history. It was about to be tested.

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168 Chenoweth, 9.
“For two weeks, the U.S. intelligence community had monitored the gradual buildup of Iraq’s armed forces along the southern border with Kuwait…By August 1, 1990, however, it had become clear to all of us working on the issue that what we were seeing unfold was a good deal more than simply another act in the long-running theater of Arab diplomacy. Iraq has amassed too many troops and was doing too many of the things it would have to do if it were actually going to attack Kuwait rather than just threaten it.” Richard N. Haass

The context in which the Civil Reserve Air Fleet was activated for the first time in its thirty-eight year history, was the Persian Gulf War of 1990-91 commonly referred to as Desert Shield and Desert Storm. The war and the events leading up to it will be examined here to identify the unique preconditions that set in motion the CRAF’s first activation. Those preconditions ranged from political, diplomatic, military, and cultural-religious, some of which overlapped in this extremely complex and volatile part of the world. There were also some pre-existing conditions, outside the war-context, which contributed to the CRAF’s first activation. The preconditions, in one way or another, set in motion certain catalysts or triggers that necessitated CRAF’s activation. These catalysts were: time, distance, and lift (airlift); and for our purposes will become our constraints.

In considering the preexisting conditions we begin first with the disposition of U.S. troops and their proximity to the Persian Gulf just before the Iraqi invasion of Kuwait. Most of the U.S. troops stationed overseas were prepositioned in Germany and other locations throughout Western Europe. Their primary focus was to defend the NATO countries from a possible invasion by the Soviet Union and the Warsaw Pact. In the Pacific, the United States maintained a large military presence in Okinawa and South Korea whose focus was on North Korea and China and the threat they posed to the security and stability of that region. The forward presence of U.S. troops in Europe was the closest pre-positioned troops to the Persian Gulf. The European land forces were supplemented by the Sixth Fleet consisting of two aircraft carrier groups plus

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some submarines; and an amphibious component which included a contingent of Marines formed into a Battalion Landing Team (BLT). The Marine BLT was used by the Fleet as a type of crisis action team. Most of the fleet’s capabilities however, were centered on the carrier groups whose major emphasis was on air-power. As the major focus of U.S strategic planning was concentrated on the Soviet threat, the European based troops were not the most suitable for desert warfare. In addition, they did not come under the control of Central Command (CENTCOM). CENTCOM would be the U.S. military command responsible for any military crisis arising in the Persian Gulf region, which encompassed Southwest Asia and the Horn (Northeast) of Africa. The only presence CENTCOM had in the Persian Gulf was a small Naval task force which was about to be drawn down with the end of the Iraq-Iran War. The disposition and lack of forward presence of U.S. troops in the Gulf Region would present us with our first constraint – distance. Should a military contingency arise requiring the presence of U.S. troops in the Persian Gulf, they would have to be deployed – primarily - from the U.S mainland. The minimum distance from the continental United States to the Gulf Region was more than 7,000 miles. Thus the distance constraint was the result of U.S. National Defense Strategy at the time, which had most of its military’s forward presence in Europe on one hand, and the lack of any forward presence in the Persian Gulf on the other. If a military crisis of significant magnitude should arise in the Gulf Region, airlift would bear the major responsibility of transporting troops into the region. Because of their special characteristics and capabilities, the Air Force’s organic aircraft would bear the major burden of carrying much of the outsized and oversized cargo. The troops, as preplanned in accordance with the National Airlift Policy, would then have to be carried into the theater by civil aviation i.e. the CRAF. Thus the need for airlift also flows from the lack of any forward presence of U.S troops in the Region, and the great distance to be traversed. With the need for airlift and distance established, the only missing constraint is ‘time.’ If then, the ‘time-constraint’ were added to the equation – which it was as we will see shortly; the lack of sufficient ‘airlift,’ the great ‘distance’ to be covered, and ‘time’ working together, i.e. if all three constraints are acting simultaneously, the need to call up the CRAF becomes imperative. John Plating, professor of history at the U.S. Air Force Academy poses the time distance factors as a geometric equation, as follows:

171 Ibid., 314.
Airpower altered war’s geometry by facilitating war in the third dimension, but air transport enhanced this alteration by accelerating the category of time and expanding the category of distance, connecting theaters of war into an integrated whole. In this sense air transport mutes geographic limitations on warfare. The ability to deliver soldiers and supplies anywhere in the world in a matter of hours has paradigmatically altered the shape of modern warfare…

Two other factors came into play which affected the prewar circumstances. The first was the rapidly declining Soviet Empire which prompted some strategic planners to begin looking at revamping the National Defense Strategy and focus. The second was an awaking militarism in the Middle East which caught the attention of some forward thinkers in the Pentagon. The next section will deal with those issues and how they brought about the ‘time’ constraint.

**The Context Leading up to War**

As alluded to above, the amphibious Marine units in the Mediterranean acted as a sort of crisis action team in support of the fleet. The Marine Battalion Landing team was used several times over the decades to land in Lebanon as a show of force. A “show of force” was about all these units were expected or equipped to do. They were also the closest any military ground forces of the United States ever got to the Middle East. The strategy worked rather well over the decades until the dawn of the 1980s, when the power relationships in the Middle East began shifting. Iran was the rising star after the 1979 Islamic Revolution, which brought the Ayatollah Khomeini and his Islamic fundamentalist form of government to power. The Iranian Revolutionary movement’s victory over the Shah and his supporters, which included the United States, began to reverberate among the Shia populations throughout the Middle East. The Shah’s overthrow caused much consternation among the ruling Sunni majorities in the neighboring states. It was the Iranian sponsored Lebanese group Hezbollah that blew up the Marine barracks in Beirut in October 1983 killing 241 Marine peacekeepers. Since the Islamic Revolution, the Iranian backed Hezbollah has brought the Lebanese Shia from minority player to principal power broker in the deeply fractious and sectarian politics of Lebanon. The Iranians were also stirring up troubles within the large Shia community in Iraq much to the chagrin of the Iraqi leadership.

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* This does not take into account several U.S Air Force Bases in Turkey whose primary focus was the Soviet Union, in addition they lacked any ground forces.
The Ayatollah Khomeini had spent several years in exile in Karbala (Iraq) and had made his mark among the Iraqi Shia. None of this was lost on the new Iraqi leader, Saddam Hussein.\textsuperscript{174} There were three major events that took place between 1979 – 1980 that upset the long standing power equilibrium in Southwest Asia, and set the stage for major U.S. involvement in the region. The first, as discussed above, was the Islamic Revolution in Iran. With the overthrow of the Shah, Iran went from a U.S. ally to a bitter enemy. The effects of the revolution not only set in motion a tide of Islamic militarism throughout the region, but also cut off a major source of oil to the West. The second was the Soviet invasion of Afghanistan in December of 1979. The Soviet presence in Afghanistan posed the real possibility of a Soviet takeover of the Iranian oil fields, just across the border. The third event was the September 1980 Iraqi invasion of Iran orchestrated by Saddam Hussein. Saddam was hoping for a quick victory over Iran as a result of the disarray caused by the Islamic Revolution, but his miscalculation was off by eight years.\textsuperscript{175} Iraq paid a heavy price for that ‘miscalculation.’ It was in the Iran-Iraq War that the seeds of the August 1990 Iraqi invasion of Kuwait were sown. The world’s attention began shifting to the new realities in the region. The conflict, which spilled over into the waters of the Persian Gulf, caused President Reagan to reflag Kuwaiti tankers under the U.S. flag and move in a naval task force to protect them. This was the beginning of the “Tanker War,” which involved several skirmishes between U.S. and Iranian naval forces. The end result of which was the accidental shooting down of an Iranian Airbus by the USS Vincennes causing the death of 290 Iranian civilians. The incident served to heighten and exacerbate the steadily deteriorating situation between the United States and Iran. The purpose of U.S. presence in the Persian Gulf was to insure the unimpeded flow of oil to the worlds’ markets. Although there was no U.S. land forces involved, the U.S. Navy moved in twenty-four ships manned and supported by close to sixteen thousand men.\textsuperscript{176} Nevertheless it was primarily the Soviet invasion of Afghanistan and the potential threat it posed to the Iranian oil fields, and the hostile shift of Iran that moved President Jimmy Carter, in January 1980, to establish the Rapid Deployment Force (RDF). The force was meant to protect the Persian Gulf Region from outside interference, while ensuring the free flow of oil. It became known as the Carter Doctrine and committed the United States to defend its


\textsuperscript{175}Tareq Y. Ismael, Jacqueline Ismael, eds. \textit{The Gulf War and the New World Order: International Relation of the Middle East}, (Gainesville: University of Florida Press, 1994), 278.

\textsuperscript{176}Schwarzkopf, \textit{It Doesn’t Take a Hero}, 311.
interests in the region. In fact, that was exactly what Reagan was doing by reflagging Kuwaiti tankers and sending in the Naval Task force in 1984. The RDF was a joint task force made up of various military units totaling about 229,000 troops. In 1983 the RDF was transformed into U. S. Central Command (USCENTCOM) headquartered at MacDill Air Force Base in Tampa, Florida. CENTCOM, like its predecessor the Rapid Deployment Force, was dependent on several Army, Navy, Air Force, and Marine Corps units, under separate commands dispersed in various locations stateside and around the world. Although CENTCOM’s area of responsibility was Southwest Asia and Northeast Africa, there were no troops directly under its command, and CENTCOM, as mentioned, had no troops with a forward presence in the region. Troops would only come under CENTCOM’s direct command when brought together in response to a crisis. Even before the Base Plan (1989-1990) was in the making, the U.S. military was already relying, for contingency planning, more and more on airlift. The National Airlift Policy tasks the CRAF to carry 90% of the troops, and 40% of the military’s cargo. Unlike NATO, if a crisis emerged in the area under CENTCOM’s jurisdiction, the CRAF would have to be called into action immediately. Having set the ground work for U.S. involvement, the situation in the Persian Gulf was becoming more and more volatile.

In August of 1988 the Iran-Iraq War came to an end with a UN brokered peace deal and no clear-cut winner. Both countries suffered heavy losses in human life and infrastructure. The Iraqis were in debt to the Kuwaitis and the Gulf States to the tune of $40 billion. Their heavy debt was exacerbated by serious damage to their oil producing infrastructure which affected their ability to generate revenues. In addition, oil prices had dipped from a high of $35 to $14 a barrel. In spite of these setbacks, the Iraqis still had the fourth largest Army in the world with nearly one million men under arms. By way of comparison, the United States had the seventh largest army in the world.

178 Ibid., 62.
179 Schwarzkopf, 313-14
* Syria, Lebanon, Israel, Libya, Tunisia, Algeria, and Morocco, came under the European Command, because they bordered on the Mediterranean Sea. (see Schwarzkopf, It Doesn’t Take a Hero, p 318)
180 Schwarzkopf, 313-14.
181 Ibid., 178-180.
184 Schwarzkopf, 348.
Iraq was appearing on some people’s radar as problematic. When General Schwarzkopf took over command of CENTCOM in 1988, its primary purpose was to stop a potential Russian thrust into the Iranian oil fields.\(^{185}\) The General went to work convincing his superiors of the obsolescence of that strategy in favor of one in which the Iraqis posed the most serious threat to the region’s security and stability.\(^{186}\) In hindsight, we all know that Schwarzkopf was right. Saddam’s unprovoked attack of Iran, resulting in the first Gulf War, was followed by an internal war against his own people. For more than two years following the Iran-Iraq War, Saddam made no attempt to reduce his army. Instead he used his military to bully and brutalize his rebellious subjects. His penchant for using war, including weapons of mass destruction, knew few bounds. He used weapons of mass destruction on both the Iranians and his own people. Between 1986-89 Saddam went on a campaign against Iraqi Kurds killing tens of thousands of them. In one instance he used nerve gas to kill 5,000 Kurdish villagers in the town of Halabja.\(^{187}\) His erratic and unrestrained behavior alone was cause for concern. Added to this was Iraq’s desperate financial situation, and the frequency and intensity of Saddam’s threats against the Kuwaitis who continued refusing to forgive his war debt; a crisis was sure to erupt.

Saddam had several other disputes with the Kuwaitis, in addition to the debt. He accused Kuwait of stealing Iraqi oil from the Ramalia oil field by slant drilling under the border. Saddam was also at odds with the Kuwaitis for exceeding the production quotas set by OPEC, and thus driving down the world-wide price of oil. Iraq wanted higher oil prices in order to increase revenues. The Iraqis needed the cash to rebuild their war torn economy and infrastructure. Not forgiving the debt was particularly odious to Saddam. The money was borrowed to pursue the war against Iran. Saddam always felt that by fighting the Iranians he was carrying the touch for the Arabs, particularly the Gulf Arabs, in defending them against Iranian aggression. Saddam considered the dismissive manner in which the Kuwaitis and Gulf Arabs were treating him, as the height of ingratitude. Lastly, Saddam claimed two strategic islands which fell under Kuwaiti control: Warba and Bubiyan at the head of the Persian Gulf.\(^{188}\) Saddam kept turning up the pressure on the Kuwaitis to give in to his demands by moving troops toward the Kuwaiti border. Although U.S. intelligence sources were getting anxious about Iraqi troop movements, they were

\(^{185}\) Schwarzkopf, *It Doesn’t Take a Hero*, 317.
\(^{186}\) Ibid., 331-32
\(^{188}\) Ibid., 442-43
repeatedly rebuffed by the Arabs, particularly the Egyptian leader, Hosni Mubarak, who kept asserting that it was all bluster on Saddam’s part; Arab nations did not attack one another. The Arabs, who favored direct negotiations to head off the pending crisis, chose Mubarak to arbitrate between Iraq and Kuwait. More significantly, the Kuwaitis never believed that Saddam would attack them, in spite of the fact that the Iraqis were massing troops along their border. At Central Command Schwarzkopf saw the volatile mix; the world’s fourth largest army, battled hardened after eight years of fighting the Iranians, and under the control of an impulsive and unpredictable despot. He also saw the massing of Iraqi troops on the border, not as an exercise, but rather, as a preparation for war. All the signs were there: units in attack formation, armor and artillery moved forward and specialized equipment in position next to the forces that would use them. More importantly ammunition and fuel were also being moved forward. All sure signs indicating that this was not an exercise, nor was it a tactic to induce the Kuwaitis to give into Saddam’s demands.

If the Iraqis moved across the Kuwaiti border a whole series of problems would ensue. The first of which was how to deal with naked aggression? The second concern was oil. How much of the world’s oil reserves would the Iraqis gain from the Kuwaiti oil fields and how much total oil reserves would Saddam control? Another question was, would the Iraqis stop there, or move on the Saudis and the other Gulf Arab states, and what would the fallout from that be? Other questions dealt with outside responses: How would America and its allies respond? How would the Soviets and the Arab nations in the region react? No one knew for sure the answers to these questions, and certainly no one was prepared for the eventuality. What did unfold however, is what concerns us here.

On August 1, 1990 General H. Normal Schwarzkopf, Commander-in-Chief of U.S. Central Command (US CINC CENTCOM) was summoned to Washington to brief the Joint Chiefs of Staff on the military disposition of the Iraqi Army and his assessment of the situation. Based on intelligence analysis, Schwarzkopf believed the Iraqis would definitely attack. The objective, in his opinion, would be limited to seizing part of the Ramalia oil fields, and taking possession of

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189 Schwarzkopf, *It Doesn’t Take a Hero*, 338.
191 Schwarzkopf, 339.
192 Ibid., 340-41
the islands of Warba and Bubiyan. They did not have to wait long to see what Saddam’s intentions really were. The Iraqis moved across the Kuwaiti border in the wee hours of the morning of August 2, 1990. Schwarzkopf’s assessment, although correct, was somewhat off the mark, instead of stopping at Ramalia and being satisfied with Warba and Bubiyan islands, Saddam took the whole country. In less than three days the Iraqis began massing along the border of Saudi Arabia. Had the Iraqis setup defensive positions along the border any number of scenarios may have played out. Instead Saddam positioned his troops in an offensive posture on the Saudi Arabian border, and that put the Iraqis only 25 miles from the Saudi oil fields. The difference between a defensive posture and an offensive one would bring a completely different reaction from the world community, particularly from Washington. With the takeover of Kuwait, Saddam controlled 20 percent of the world’s known oil reserves, but within another twenty-five miles lay another 20-25 percent. In just three days the crisis went from a regional conflict to one of worldwide proportions.

A number of responses were considered in and out of Washington. The Arab League pushed for negotiations while others opted for sanctions. If a response like sanctions were to have any effect, they would have to be backed up with a viable military threat. This option presented several problems the least of which was; who would take on the world’s fourth largest army? Unquestionably, the leadership role would fall on the shoulders of the United States who by then, was the undisputed victor of the Cold War, and the only world superpower. The United States, however, did not have any pre-positioned troops in the region. It was very unlikely that any nation sharing a border with Iraq would invite U.S. troops within its borders considering the U.S.’s long relationship with the colonial powers, not to mention, the U.S.’s long standing history of supporting Israel. U.S. Central Command’s headquarters, whose area of responsibility Iraq and Kuwait fell under, was more than 7,000 miles away. Nevertheless the crisis precipitated by the unprovoked Iraqi invasion of Kuwait, demanded a response.

Diplomatic and Political Initiatives

Taking the initiative, the United States began moving on several fronts. Early decisions out of the White House would dictate the U.S.’s course of action: The first was to go to the U.N. and

193 Schwarzkopf, It Doesn’t Take a Hero 341.
195 Ibid.
get the Security Council to take a firm stand against the Iraqi aggression. The second overlapped, and that was to build the widest possible coalition of nations to take a stand against the Iraqi aggression. U.S. Ambassador to the United Nations, Thomas R. Pickering, began working within the U.N. Security Council for a condemnation of Iraq’s invasion of Kuwait including a demand that the Iraqis return unconditionally to the status quo before the invasion. The U.N. Security Council (UNSC) responded with its first of several resolutions. The first, Resolution 660, was issued on August 2, 1990 and followed through with the condemnation of Iraq and a demand for their full and unconditional withdrawal from Kuwait. The Soviets voted for the resolution and thus signaled a break from the Iraqi regime that it supported and armed over the years. On August 6, UNSC Resolution 661 was passed imposing economic sanctions on the Iraqi regime.\(^\text{196}\) There would be a total of twelve UNSC resolutions imposed on Iraq during the crisis. In spite of unanimity early on, much work remained ahead to maintain a unified consensus. Diplomatic efforts were delicate and complex and involved coalition building, soliciting financial backing, and lobbying the U.S. Congress for its support. Most of these tasks were carried out by Secretary of State James Baker, and Ambassador Pickering at the U.N. The President began working the phones soliciting support from world leaders by calling in favors, making concessions, and twisting some arms. One example was to forgive Egypt’s $7 billion debt to the United States. Mubarak’s support was a key to gaining the support of the Arabs.\(^\text{197}\) The Egyptians were the major power-brokers in the Middle East and their support was critical in persuading the other Arab nations to take a firm stand against Iraqi aggression. Egypt was also strategically important because it was the shortest distance between the Mediterranean and the Red Sea. Besides it was imperative that the U.S have over flight permission through Egyptian airspace. Geography dictated that the most expeditious route to the Arabia Peninsula – bypassing Iraq – was down the Red Sea along the Arabian west coast. Naval access through the Suez Canal also increased the need for Egyptian collaboration.

Coalition building was complex as it took on several aspects. According to Ambassador Pickering, there was more than one coalition during the crisis. There was the coalition at the U.N. Another was made up of nations who for one reason or another would not or could not send troops; they rendered financial support. There were those who supported sanctions; and then,
there was the military coalition. Not all nations belonged to all the ‘coalitions’ and holding them together required a delicate approach. A good example was the Soviet Union which supported the U.N resolutions but did not contribute troops or money. Germany and Japan – for obvious reasons – did not contribute troops, but did help finance the operation. Ambassador Pickering made the distinction because most studies on the conflict refer to ‘the coalition’ as if there were only one. The complexity of the ‘coalition (s)’ must be appreciated because its multifaceted nature required real diplomatic skill to hold it together. The rewards of international unanimity against Iraq would give a strong impetus to gaining U.S. domestic support, which was essential if the U.S. was to assume a leadership role. On the international front unanimity within the world community would recognize the U.S., as the acknowledged leader of the coalition; and provide it with a moral force and legal justification. One of the biggest hurdles to overcome was gaining congressional support and thus the support of the U.S. people through their representatives. There was quite a bit of resistance in the Senate where the questions of the potential loss of American life, and what cost the war would impose on the American taxpayers. These were the issues that resonated most among the American people. President Bush was up against an opposition Congress and even former President Jimmy Carter got into the act by sending letters to the leaders of the nations represented on the U.N Security Council, asking them not to support the U.S position on Iraq. Secretary Baker is quoted as saying in his interview at the George H.W. Bush Oral History Project; “It was not a popular thing, and the Democratic opposition in the Congress was fanning the flames of unpopularity.” It was this type of opposition that the Press picked up to report that ‘the coalition’ was coming apart. Although this was not true, it did point out that the coalition was tenuous at best. Ambassador Pickering however insists that the U.N. coalition was solid. Solid or otherwise, there was a perception that the international coalition lacked a certain cohesion. Saddam would try and exploit that weakness. Thus the state of the coalition, i.e. its permanence, might not endure. This perception reinforced the time constraint. The sooner the crisis was resolved the better. The longer the crisis went on, the more there was possibility of the coalition disintegrating.

199 Haass, War of Necessity, War of Choice, 102.
201 Haass, 102.
202 Interview with Pickering.
In an attempt to weaken the coalition of nations arrayed against him, Saddam targeted the most vulnerable point, the U.S.’s ties to Israel. As a condition of his withdrawal from Kuwait, Saddam proposed to link withdrawal to the ‘Palestinian problem.’ By linking Iraqi withdrawal from Kuwait to Israelis’ withdrawal from the ‘occupied territories,’ Saddam was attempting to insert a wedge between the Arabs and the supporters of Israeli on the coalition. This proposal was not at all acceptable to the U.S. administration and its coalition partners, as the UNSC Resolution called for the unconditional Iraqi withdrawal from Kuwait. It did however resonate with the Palestinian people, and to a certain extent with the ‘Arab Street; but neither the Palestinians nor the proverbial ‘Arab Street’ were part of the coalition to begin with. But Palestinian resistance did make it difficult for King Hussein of Jordan to support the coalition, as Jordan had a majority Palestinian population. The King would become a headache for the administration because of his refusal to join the coalition and his support of Saddam.  Not one to give up easily, Saddam would begin targeting Israel with Scud missiles to entice the Israelis to retaliate. If Israelis had retaliated in kind, it would have undoubtedly weakened, and possibly torn apart the unity among the Arab nations of the coalition. Intervention by the highest levels in the administration, and the positioning of the Patriot anti-missile system in Israel were able to placate the Israelis for a time. The threat always remained however, that Saddam would launch Scuds with chemical warheads against Israel. Fortunately he didn’t, but as long as the threat remained the need to resolve the crisis sooner than later, took on larger proportions. The time constraint was ubiquitous.

U.S. Secretary of State Baker based his strategy on getting the U.N fully behind the effort against Iraq by persuading the Security Council to issue the resolutions discussed above. In other words the administration felt it was better to move with UN support than without it. Once the U.N. was behind the effort then Congress could be leveraged for support. As to whether to seek congressional approval or not, was also a matter of choice. Much of the administration’s efforts focused on getting a resolution through the UNSC authorizing the use of force, to effect an unconditional Iraqi withdrawal from Kuwait. Putting an emphasis on passing a resolution through the Security Council that amounted to an ultimatum however, was risky. If the initiative failed, the administration’s position on Iraq

203 Haass, War of Necessity, War of Choice, 77-78
204 Yetiv, The Persian Gulf Crisis, 76-77.
205 Transcript of Interview with James Baker, 21-22.
would have been weakened. The Soviets, a permanent member of the Security Council, were reluctant to go along with any authorization sanctioning the use of force to evict the Iraqis from Kuwait.206 They began acting unilaterally in their pursuit of a diplomatic solution. They were however suggesting solutions that compromised some of the previously issued UNSC resolutions.207 Had the Iraqis taken the Soviet offer it would have complicated the situation and most likely upset the coalition. The Iraqi’s failure to respond positively to the Soviet initiatives was fortuitous, and more than likely forced the Soviets to support a harder line, albeit reluctantly.208 Saddam’s inflexible and adamant refusal to accept any form of compromise, especially early on, worked against him in several ways. The first was that it hardened what could have been a fragile and exploitable coalition. The second was that with each passing U.N. resolution Saddam’s “window of opportunity” was closing, as U.N. resolutions are not negotiable. Saddam backed himself into a corner.

There were some in the administration who believed the President had all the authority he needed to use force without U.N. or congressional approval. The U.S. Senate had already approved the U.N. Charter. Article 51 of the U.N. Charter authorizes member nations to come to the aid of other members when under attack.209 The Iraqi invasion of Kuwait was a textbook example of the kind of situations addressed by Article 51. The President is also empowered to take military action without congressional approval when the national interest is at stake.210 The national interest in question was about the disruption of the free flow of oil out of the Persian Gulf. The very reason the Carter Doctrine was established. On the other hand if the President asked for, and failed to get congressional approval after having committed U.S. forces, it would have been a major public relations disaster and opened the administration to sever criticism. So why risk the chance, if you already have the authority? President Bush’s choice was to link UNSC Resolution 678 (the ultimatum) to congressional approval. Passage of the resolution would have unquestionably given the U.S. led coalition the high moral ground. Bush decided to take the high road which in effect highlighted the differences between himself and Saddam. Many within the administration however, believed

206 Interview with Thomas Pickering, Wash DC Feb., 14, 2011.
208 Ibid., 95.
210 Cheney, In My Time, 205.
that the President had already made up his mind to go to war – if necessary. Baker believed that the President was ready to go to war without congressional or UNSC authorization. Baker was clear on the issue, when in an interview he responded to the question:

**Strong:** Did Senators understand that if they hadn’t voted to approve the Gulf War, the administration was going to go ahead anyway? **Baker:** I don’t think they did. No, I don’t believe so, but we would have…but we didn’t have to call for the vote until the vote count showed we were pretty close.\(^\text{211}\)

George Bush senior however, was an experienced politician as well as a former diplomat. He realized that he was working with an opposition Congress. He also realized that by building a consensus with the opposition his cause would have been strengthened. And Bush was a good consensus builder. Of course, it also explains why President Bush, having already made up his mind to go to war, ordered doubling the troop levels before any approvals or authorizations were given.

To address the financial cost of the war issue, Baker was sent on an around-the-world tour known as the “Tin Cup Mission” to solicit financial support from the U.S.’s friends and allies. His first solicitation was to the Saudi’s who contributed $15 billion to the war chest matched by the Kuwaitis. In the end Baker collected $70 to $75 billion which included substantial contributions from Germany and Japan. The out-of-pocket war expense to the U.S was ten million dollars.\(^\text{212}\) Considering the extent of the buildup and the resources expended to evict the Iraqis from Kuwait, the cost to the U.S. taxpayers was a pittance. The efforts of Ambassador Pickering at the U.N. and Secretary Baker would pay off. Congress would eventually come around and support the Administration’s position.

All of these efforts took time, but with the Iraqi troops peering over the Saudi border in attack formation, there was no time left. The decision was made to ask the Saudis if they would allow U.S. troops into their Kingdom to block an Iraqi thrust across the border. After a preliminary meeting between Secretary of Defense Dick Cheney, Colin Powell Chairman of the Joint Chiefs-of Staff, and Prince Bandar, the Saudi Ambassador to Washington, it was agreed that a U.S. delegation would meet with the Saudi ruler King Fahd, to discuss the issue. The delegation was headed by Secretary of Defense Cheney, Deputy Secretary of Defense Bob Gates, General Schwarzkopf, and U.S. Ambassador to Saudi Arabia Chas Freeman. The meeting took place on

\(^{211}\) Transcript of Interview with Sec. of State Baker, 23  
\(^{212}\) Transcript of Baker interview, 22
August 6 in the King’s summer palace in Jeddah. After the King was presented with the aerial photos and other intelligence that demonstrated the Iraqi troop dispositions, and several cross border violations, he made the truly momentous decision to allow foreign troops to set foot on the kingdom’s territory; but not before having the assurance of the United States’ full commitment. The Saudis were skeptical of U.S. ‘commitments’ ever since Jimmy Carter sent a squadron of unarmed F-15 to defend the Kingdom against an earlier threat. Understandably the Saudis were offended by Carter’s effrontery and remained suspicious of the U.S.’s offer to help. Nevertheless, they accepted the U.S. offer. It was an unprecedented decision on the part of the Saudis, because it violated religious and traditional taboos by allowing what were considered infidels – military infidels to boot – to set foot in the Kingdom that served as the protector of Islam’s holiest sites. The Saudis really did not have a choice, however, it was either tolerate the American presence or be taken over by Saddam Hussein. Nevertheless, by allowing a large American force on its soil the royal family was sure to make enemies among the religious establishment and other religious fundamentalists. Ambassador Freeman believes that the “seeds of September 11th were planted” at that moment. That observation of course was in hindsight, but it illustrates the magnitude of the King’s decision and for our purpose it reinforces the time constraint. The pressure was on the U.S. military establishment to get in and out of Saudi Arabia and complete its mission in a timely fashion, and hopefully avoid any scandalous incidents. The King was reassured that U.S. troops would not be an occupying force nor was the “visit” open-ended. Secretary Cheney assured the King, “we will seek no permanent bases, and when you ask us to go home, we will leave.”

The order to deploy U.S. forces sufficient to defend the Saudi Peninsula against an Iraqi attack, was given by General Schwarzkopf shortly after the meeting. On the very next day, August 7, 1990, two commercial airliners belonging to World Airways were on their way from Pope Airfield just outside Fort Bragg North Carolina, with advance elements of the 82nd Airborne Division. The CRAF had not yet been activated but commercial airlines, at the time, already had twenty-eight aircraft in service and on contract with the DOD. In the ten days before the activation of the CRAF on August 17, 1990, these volunteer aircraft would fly approximately

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213 Interview, Amb. Chas Freeman (Washington DC April 29, 2011).
214 Schwarzkopf, It Doesn’t Take a Hero, 352-355
215 Powell, My American Journey, 452.
216 Interview with ambassador Chas Freeman
217 Schwarzkopf, It Doesn’t Take a Hero, 352.
30 missions to Saudi Arabia. The first activation in the history of the CRAF only brought an additional 10 aircraft to MAC, as Stage I only called for a total of thirty-eight aircraft. Both the CRAF and MAC’s organic aircraft, which at the time, was composed of: C-130s, C-141s, and C-5s, were flying into the Saudi Peninsula bringing men and materiel. The mission, which was dubbed Desert Shield, was intended to put in place sufficient military forces to block a potential Iraqi invasion. Had Saddam issued the order to attack Saudi Arabia precipitously, there wasn’t much anyone could have done to stop or even slow his advance. But his hesitation allowed the United States military adequate time to bring sufficient forces into place. Nevertheless the military was holding its breath as the first and subsequent troops were put in place before the buildup reached a sustainable level, which emphasized the nature of the ‘time-constraint.’ Discussing the role of the initial 4,000 troops put in place from the 82nd Airborne, Schwarzkopf highlighted the dangers and the urgency of the buildup,

“Their job would be to assert a U.S. presence – a dangerous mission, because if Iraq attacked, the 82nd Airborne’s light weapons would be no match for Saddam’s tanks...We would need three months to mass enough combat power to be absolutely assured of fending off a full-scale Iraqi attack.”

On August 22, 1990 President Bush authorized the call-up of 200,000 reservists and national guardsmen. The president had the authority to activate the Reserves for 180 days without congressional approval. There is great significance in calling up the Reserves in war time, as it moves a portion of the citizenry into jeopardy. The U.S. military could no longer be considered as a solely professional one, as citizens-soldiers would now share in the dangers and responsibilities. For our purposes however, it adds to the time constraints. Long-term mobilization of Reservists – even with congressional approval – can have a long term negative effect on the economy, not to mention the problems associated with the extended separation of mothers and fathers from their families for the duration of the war.

The airlift took off at a furious pace with the Military’s organic aircraft picking up the lion’s share. In August 1990 the military’s organic aircraft flew 1381 missions and the CRAF only flew 172, but by September the CRAF was up to 308 missions. While the Air Force was flying most of the cargo, particularly the oversized and outsized materiel, the CRAF

219 Schwarzkopf, It Doesn’t Take a Hero, 349.
220 Powell, My American Journey, 459.; and Schwarzkopf, 374-75.
was carrying most of the troops.\textsuperscript{221} As an example, the army’s VII Corps would provide the coalition’s main tank force; while their tanks would be arriving by sea, their manpower would be flown in on the CRAF.\textsuperscript{222} The longer the Iraqis waited the more the buildup continued. Schwarzkopf estimated that it would take up to three months, as quoted above, before sufficient forces were in place to repel an Iraqi invasion.\textsuperscript{223} In the meantime the members from the 82\textsuperscript{nd} Airborne called themselves Iraqi ‘speed bumps’ and Schwarzkopf commented that “we have all the forces we need to prevent such a disaster. There is only one small problem; the force was still in the United States.”\textsuperscript{224} Nevertheless the airlift continued uninterrupted and unabated. It was nicknamed the ‘aluminum airbridge’ and MAC was tracking up to eighty aircraft at any one time winging their way across the Atlantic.\textsuperscript{225} The number of troops originally proposed (100,000) continued to increase as the Iraqis kept pouring troops into the theater. At the request of General Schwarzkopf the numbers would be doubled by early November. The administration agreed to add an offensive capability to the original defensive forces “should that be necessary,” Bush is quoted as saying.\textsuperscript{226} The transition from a defensive force to an offensive one had the full support of the President. President Bush, as previously noted, had taken a firm stand against the Iraqi aggression from the very beginning.

\textbf{Cultural–Religious Influences}

The pressure was on not only to build up forces but to bring the troops, who were slowly coming into contact with the Arabian populace, into a compliance with the local cultural mores. While the troops were in the buildup stage, and for all practical purpose idling in the desert while waiting for an Iraqi move, many logistical and support troops remained in the rear just outside the principle cities of Dhahran and Riyadh. It was in the souks and market places where the locals came into contact with U.S. servicemen. Many official complaints began flowing into General Schwarzkopf’s headquarters. Not because U.S. troops were behaving poorly, on the contrary, they were on their best behavior under the circumstances.

\textsuperscript{222} Ibid., 32.
\textsuperscript{223} Schwarzkopf, \textit{It Doesn’t Take a Hero}, 349.
\textsuperscript{224} Ibid., 359.
\textsuperscript{225} Ibid., 376
\textsuperscript{226} Cheney, \textit{In My time}, 204.
The problems stemmed from the wide differences in cultural and religious behavioral patterns. The cultural chasm was widest in Riyadh where the locals rarely came into contact with foreigners before the war. There were constant reminders of cultural differences and the fact that westerners were not a welcomed sight to the ulama. In spite of the special emphasis on the military’s part to indoctrinate the troops on behavioral matters, it was almost impossible to please the Saudis. Schwarzkopf summed up his frustrations for us, “the most pressing need of the Saudis was not the threat posed by Saddam. What loomed largest for them was the cultural crisis triggered by the flood of Americans into their kingdom.”

There were complaints about women carrying weapons slung over their shoulders; women in t-shirts unloading trucks, and even about women driving the trucks. The Saudis complained about the sale of various logo-driven t-shirts that American favor, as offensive. One style in particular offended the Saudis because it had a map of the Kingdom showing its principle cities. This was considered a security breach. They were particularly offended by the symbol of the cross worn by military chaplains. In order to please the Saudis, the chaplains agreed to forego wearing their insignia. The Saudis also made it clear that no women entertainers would be allowed to perform in the kingdom. It wasn’t that the Saudi leadership didn’t understand what they were asking. They feared that “violations” of their cultural taboos would be shown on CNN and undermine their standing throughout the Islamic world as protectors of the Islamic holy sites. They also feared undermining their authority among their own religious establishment. They did tolerate non-public Christian worship as long as it was discreet and kept within the military’s confines. Stateside, General Powell was taking heat from the Saudi Ambassador Prince Bandar, who advised the General that no religious services would be permitted for Jewish troops on the Saudi Peninsula. Powell retorted, “They can die defending your country, but they can’t pray in it.” Bibles were also forbidden. Eventually Jewish troops serving with the coalition were allowed to worship on board naval ships stationed in the Gulf. These were real issues that put pressure on the American leadership and reminded them that this operation was not ‘open-ended’ and made them realize that they could easily wear out their welcome. It was indeed another reminder of the time constraint.

227 Schwarzkopf, It Doesn’t Take a Hero, 386.
228 Ibid., 386-390.; and Powell, American Journey, 461.
229 Powell, 461.
230 Ibid., 461.
On the other hand the Kuwaiti ambassador to the United States was pressing the U.S. to take firm action against Iraqi aggression with stories of atrocities and claims that the Iraqis were depopulating Kuwait.\(^{231}\) Although some of these accounts proved to be exaggerations, there was no question that the Iraqis were dismantling the Kuwait infrastructure and plundering the nation. Within six day of its invasion, August 8, 1990, Iraq annexed Kuwait as its nineteenth province.\(^{232}\) There remained the question of American and other western hostages in Iraq and Kuwait that Saddam was threatening to use as human shields. The clock was still ticking down while the time constraint was looming larger.

The most significant event affecting the ‘time-constraint’ however was the coming of Ramadan. Ramadan would begin in mid-March of 1991, and the presence of so many foreign troops on the Saudi Peninsula could put an undue strain on the coalition’s standing among Muslims. The administration believed that with the coming of Ramadan, support among the Arab and Muslims states would weaken. Pushing the ‘standoff’ further into March would also create the possibility of another summer in the desert which “would reduce the efficiency of offensive military operations.”\(^{233}\)  The operation would have to be tied up before Ramadan. That decision, in any case, was not in the hands of the generals but in those of the politicians. Work was going on at the U.N. to get a Security Council resolution authorizing force, if necessary, to eject the Iraqis from Kuwait. On November 29, 1990 the UNSC issued Resolution 678, which demanded Iraq withdraw from Kuwait in accordance with UNSC Resolution 660 and authorized “Member States to use all necessary means,” to implement previous resolutions, unless Iraq complied by January 15, 1991.\(^{234}\)

“All necessary means” was a euphemism for military force. The watered down wording was a result of Russian insistence on softening the tone of the resolution.\(^{235}\) Just three days prior to the deadline for withdrawal, January 12, 1991, the U.S. House and Senate gave the President the authorization to use force against the Iraqis.\(^{236}\) With approvals from both the UNSC and the U.S. Congress, the administration could act with the full support of the American people and that of the international community. The timeline was set. Iraq had

\(^{233}\) Haass, 95.
\(^{235}\) Ambassador Pickering interview
\(^{236}\) Cheney, *In My Time*, 207.
roughly a month and a half to withdraw and the international coalition of troops had the authorization to use military force after 15 January. The military planners had exactly the same time to move from a defensive posture (Desert Shield) to an offensive one (Desert Storm). It also meant that the coalition had from January 15, to mid-March to effect the eviction of Iraq from Kuwait, if force was necessary. These time constraints meant that the airlift would have to accelerate in order to meet the deadlines. There is no question that the CRAF was responsible for the heavy burden of getting the majority of troops into the theater before January 15, 1990.

Obviously time plays a role in any crisis to a lesser or greater extent, just as it does in business and everyday life. From our perspective however, the time element was crucial in determining whether or not the CRAF was to be activated. As discussed previously during the Vietnam War, the CRAF was never activated because the military buildup was much slower and escalated progressively as did the de-escalation phase of American involvement. The determining factor was not the need for lift (airlift). Indeed the need for lift was there in Vietnam as well as Korea and in WW II. In both Korea and Vietnam we saw that the need for airlift was filled by volunteer aircraft from civil aviation. By extension we might conclude that if time were not a factor in Desert Shield/Desert Storm, the military would have had sufficient volunteer aircraft from the civilian sector. At the outbreak of hostilities, as previously mentioned, there were already 28 civil aircraft in service with MAC. In every wartime crisis the need for additional airlift exists. National airlift policy shifts the responsibility to fill that need from the military straight into the hands of civil aviation. It is their duty to augment the military’s own organic airlift capabilities. The question is; will volunteer aircraft be sufficient or not, in terms of meeting the military lift requirements? It appears from what we have demonstrated above, the determining factor as to whether the CRAF was activated or not, was time, or more precisely, the lack of time. Time is then our most important constraint. We cannot however separate distance (as a constraint) from the equation. The longer the distance, the longer the time, the more the need for airlift increases. A hypothetical example might be a crisis of equal proportions to the Persian Gulf crisis occurring in Mexico, Central America or even Venezuela. Sealift and organic aircraft with some civil aviation volunteers might be sufficient to meet the military’s lift needs. This is

only speculation, but as soon as you eliminate distance as a factor, the time factor is diminished proportionally, although lift requirements remain unchanged. Thus the airlift requirements are determined by the magnitude of the crisis, and the time in which the crisis must ideally be resolved, factoring in the total distance to be traversed. When the need for airlift exceeds the capabilities of the Air Force’s organic fleet, civil aviation must fill the void by volunteering aircraft or by activation of the CRAF. The decision always remains with the DOD.

Diplomacy Continues

As a last ditch effort, and as more of a concession to those who favored sanctions, more negotiations, or peace at any cost, President Bush agreed to a meeting in Geneva between Secretary of State Baker, and the Iraq Foreign Minister Tariq Aziz. The meeting was held on January 9, 1991, just six days before the deadline that mandated the withdrawal of Iraqi forces from Kuwait. Many in and out of the administration, including the Saudis, believed the President may have been reluctant to go to war and was looking for a way out. There was speculation that the President was about to give Saddam a face saving opportunity out of the crisis short of complying with all the U.N. resolutions. The Secretary of State was clear in his denial that this was the intent of the last minute meeting. Secretary Baker said in an interview for the Bush Oral History Project;

Everybody thought we were going there and negotiate. That was never the purpose. The purpose was to make sure historians were not able to say, ‘You went to war. You just jumped the gun here. You didn’t exhaust every possible opportunity to resolve it diplomatically.”

The declassified minutes of that six hour meeting between Baker and Aziz seems to bear out the Secretary’s comments. In his introduction, after all of the formal diplomatic niceties were stated, Baker made clear that the meeting was not a negotiation but a clarification so that there will be no misunderstanding before war broke out. According to the minutes of the meeting Baker is quoted as saying,

Our purpose ought not, in any sense, to be to pressure each other. However, it should be no surprise that I’m not here to negotiate from the resolutions passed by the UNSC. I am here to communicate…

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238 Haass, War of Necessity, War of Choice, 103.  
239 Transcript of Interview with James Baker, 27.
Tariq Aziz’s position, which was certainly Saddam’s, was in firm opposition. The Iraqis felt justified and greatly misunderstood. Aziz was sure the Americans greatly misjudged both Iraqi determination and its military capabilities. While deploring war and its sufferings, he told Baker that it was sad that so many would have to die including many Americans. The Iraqis were playing for high stakes. Had they invaded Saudi Arabia when they had the chance they would have controlled up to 50% of the world’s oil reserves, but without Saudi oil their share would still have been significant. They would have also had a powerful influence over the price of oil within OPEC, and would have been able to wield economic and political influence over the region. They were gambling, and they believed the deck was stacked in their favor.

Road to War – CRAF Stage II - The Buildup Continues

In November 1990, as mentioned above, the President gave the order to increase troop levels in Saudi Arabia by roughly 250,000 to provide an offensive capability. The surge in troop levels was known as Phase II (not to be confused with CRAF Stage II). The CRAF Stage I was still in effect and had provided the DOD with 38 long range international aircraft. The increased airlift requirements of the Phase II operation were met by encouraging the airlines to volunteer additional aircraft in exchange for advance contracts with the DOD. By volunteering sufficient aircraft, the DOD avoided activating CRAF Stage II. By the beginning of January 1991 there were twenty-four U.S. air carriers providing up to 64 long range cargo and passenger aircraft to the DOD. Many of the additional U.S. troops were being redeployed out of European bases. The shorter distance from Europe to the Arabian Peninsula somewhat lessened the demand for additional airlift. During November and December however, requirements increased for cargo aircraft. The rising troop levels on the Arabian Peninsula required more and more sustainment materiel causing a backlog of cargo at several stateside military cargo terminals. The backlog became a major logistical problem as the longer the troops stayed in the desert the more their sustainment needs.

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241 Unclassified Minutes of the Meeting between Baker and Aziz, 10-11.
increased. The backlog reached its peak simultaneously with the phase II deployment. Part of the problem was that the military – all branches – were abusing the cargo priority system by assigning most of their materiel with the highest priority, including “sand-bags, fence post, toilet paper, t-shirts and mittens.” The problem was also exacerbated by the increase in Christmas mail. During this period the CRAF freighters (all-cargo aircraft) were in highest demand. At one point the DOD considered going directly to CRAF Stage III activation in order to bring additional aircraft into service, but decided against it after considering its negative impact on the aviation industry during the holiday season. As the backlog continued into January and February the need for additional aircraft was eliminated – again – by the addition of volunteered aircraft from the civil air carriers. Once again the air carriers stepped up when the need for additional aircraft increased. After the holiday season was over U.S. air carriers were able to provide the DOD with a total of 78 Long Range International freighters of which 40 were CRAF assigned and 38 were volunteered.

The DOD queried the airlines about the likelihood of Stage II activation. Many of the air carriers preferred to delay activation due to the anticipation of heavy travel demand over the holiday season. Into January, with the approaching deadline calling for Iraqi withdrawal from Kuwait by the 15th, the demands for airlift continued increasing as the likelihood of war became immanent.

On January 15, 1991, the Iraqis, as anticipated, did not comply with UNSC Resolution 678. The next move was up to the U.S. led military coalition. On January 17, the air campaign began. Operation ‘Instant Thunder’ – the air-operation to evict the Iraqis from Kuwait was on. On the very same day the war began – January 17, 1991, the CRAF Stage II was finally activated. The activation required the air carriers to provide a total of 77 passenger and 39 cargo aircraft to the DOD. Those numbers were boosted by additional volunteer aircraft. As mentioned above.

As the diplomatic and political initiatives were unfolding, the CRAF was carrying men and material across the Atlantic and into the Persian Gulf as part of the Military Airlift Command. The civil air carriers were flying directly into military bases across the country.

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244 Matthews and Holt, *So Many, So Much, So far, So Fast*, 84-85.
245 Ibid., 87.
247 Ibid., 13-14.
picking up troops and cargo and then flying to an intermediate point to change crews and refuel before going transatlantic. The transatlantic transit point was roughly the half-way point. At the transiting stopover in Europe – Rome – in many cases, there was a crew change and after routine servicing of the aircraft the flight headed non-stop to the Arabian Peninsula. The flight plan out of Rome, in most instances, took the aircraft south down the spine of the Italian Peninsula then turning left over the Mediterranean Sea on an easterly heading to Crete. At Crete the Aircraft banked to the right and headed for Alexandria Egypt where – with diplomatic clearance - it cut diagonally across Egypt to the Red Sea.\textsuperscript{248} Continuing south along the Red Sea to a point just south of Jeddah, where the aircraft turned left making land fall over Saudi Arabia. At this point the aircraft would drop relatively low to avoid the airspace reserved for tactical military aircraft refueling, on reconnaissance missions, or on bombing runs. Approaching the eastern part of the Peninsula the aircraft would turn north heading to one of several airfields in Riyadh, Dhahran, or El Jubal. It was not uncommon in the early days of the deployment that once making land fall over the Saudi Peninsula the commercial carriers were met by F-15 escorts to assure that they arrived safely. After the U.S. led coalition began the air war and gained air-superiority, this was no longer necessary. The flying time from Europe was a good seven and half to eight hours and another eight or so hours on the return. There were some discrepancies concerning flying time from Europe to Saudi Arabia given in the accounts. The variation in flying time was a result of the outbreak of hostilities on January 17\textsuperscript{th}, when the carriers were required to fly further south down the Red Sea than previously. The accounts represent before and after the outbreak of hostilities, which explains the disparity in flying time. No commercial carriers remained overnight on the ground in Saudi Arabia. Unlike the military pilots flying MAC’s organic aircraft, the CRAF flights had no relief crews pre-positioned on the ground in the desert. There were always extra operating crew members on board each flight to fly the return trip.

\textbf{Summary and Conclusion}

In reviewing the major points in this chapter, we began with the context in which the CRAF was called on to augment the U.S. Air Force’s organic aircraft for the first time in its

\textsuperscript{248} Cheney, \textit{In My Time}, 192.
thirty-eight year history. That context was the Persian Gulf War of 1990-1991. We covered the conditions concerning the forward disposition of U.S troops, in accordance to the U. S. National Defense Policy in force at the time, and in relation to the Persian Gulf region. The National Defense Policy was focused on the threat posed by Communist expansionism in Europe by the Soviet Union, and in Asia by Communist China and North Korea. The lack of any U.S. troops with a forward presence in the Persian Gulf meant that in the event of a military crisis, the necessary number of troops to meet the crisis would have to be brought in from outside the region and from a very great distance. The troop disposition factor was compounded by the fact that U.S. Central Command, the military command responsible from the Persian Gulf, was headquartered 7,000 miles away in Tampa Florida, and had no troops under its direct command. Troops were assigned to CENTCOM only in a crisis and were dispersed within other commands located primarily throughout the continental United States. Bringing them together would entail a major logistical and transportation effort. These factors set in motion many of the preconditions which triggered the activation of the CRAF. We called these preconditions catalysts and narrowed them down to the three constraints; lift (airlift), time, and distance. We continued with a brief historical outline on the nature and causes of the Iraqi invasion of Kuwait on August 2, 1990. We discussed background of American involvement in the Persian Gulf beginning with the Carter Administration and the importance of American interest in the region. The basis for that involvement was the availability and free flow of oil from the region. We introduced several other preconditions, including political, diplomatic, military, and cultural-religious situations resulting from the Iraqi invasion of Kuwait and peculiar to the region. These in turn intensified our constraints and made the CRAF activation all the more likely. We took time to compare the absence of the time constraint during the Vietnam War as a major reason the CRAF was not activated. With WW II, Korea, and Vietnam however we noted that there was sufficient airlift (aircraft) volunteered by the civil air carriers. It is well to note here, and in the way of recapitulating, the CRAF did not exist during WWII and during the Korea conflict it was no more than a paper concept. We discussed the building of an international coalition to take a unified and multilateral stand against Iraqi aggression; and the solicitation of financial support for military action. We described the administration’s efforts to overcome Congressional opposition in order to form a bi-partisan consensus before
engaging U.S. troops in what could have been a costly war in terms of human life and financial resources. There was also a major effort to gain unanimity among the member nations that make up the U.N. Security Council, in order to condemn the Iraqi aggression and demand complete and unconditional withdrawal of Iraqi forces from Kuwait. We mentioned the hard work and skillful diplomatic maneuvering of Secretary of State James Baker, and U.S. Ambassador to the U.N. Thomas R. Pickering. We also discussed the deteriorating political and charged military situation in the Persian Gulf region. We saw how the delicate nature of the coalition and Saddam Hussein’s efforts to split or weaken it, created an urgency to resolve the crisis at the soonest opportunity.

The disposition of U.S. troops, as discussed above, established the demand for lift which was magnified by the distance involved. The military’s airlift capabilities were surpassed by the distance alone. The fact that the Iraqi army was the fourth largest ground force in the world meant the deployment would be a major one. We hammered home the mandate assigned to U.S. civil air carriers (CRAF) by the National Airlift Policy to move troops and materiel into a war zone or crisis area. Certainly the severity or magnitude of the crisis bears on the airlift requirements. Had it been a minor crisis the military’s organic aircraft may have sufficed to provide the necessary lift. In a crisis closer to the U.S. homeland perhaps the Air Force’s organic aircraft and the civil aircraft already in service with the DOD or additional volunteer aircraft would have filled the need. In this case however the U.S. led coalition was going up against the one of the world’s largest army. The need for the augmentation by civil aviation to fill the airlift needs was well established.

Having established the constraints of distance and the need for additional airlift, the time constraint – our most influencing constraint – remained to be considered. We discussed several factors that influenced the need to effect a timely execution of the buildup of troops and materiel into the Persian Gulf.

The conditions which triggered the first activation of the CRAF have never before come together with such force. The buildup of military forces and the beginning of war were on a narrowly defined timetable. The distance was a clear geographical reality and the need to airlift sufficient forces to engage one of the largest armies in the world were not in question. The CRAF was designed specifically to meet the challenges presented by these circumstances.
The following chapter will deal with the performance, accomplishments, and achievements of the CRAF during operation Desert Shield/Desert Storm. We will also discuss the problems encountered by the CRAF in its first activation, and how they were resolved. A look at the CRAF historical “firsts” will round out the next chapter.
CHAPTER FIVE
THE CRAF IN THE PERSIAN GULF WAR 1990-1991

“What this fighting general had just witnessed was global airlift come of age. What was transpiring before his eyes was the ultimate fulfillment of Edgar Gorrell’s’ pledge to Franklin Roosevelt: The nation can depend on its airlines when the chips are down. What Schwarzkopf had just seen was the legacy of a tradition born fifty year earlier…What was occurring on that dusty Saudi Arabian airfield was the culmination of a half century of military airlift progress that had matured through three wars and the defeat of the Berlin blockade.”

Robert J. Serling

Introduction

The CRAF deployment of troops to Saudi Arabia was broken down into two phases: Phase I, which lasted from August to November, supported Desert Shield – the defense of Saudi Arabia. Phase II began in December of 1990 after the United Nations Security Council set the deadline for Iraqi withdrawal from Kuwait by 15 January 1991. The ultimatum signaled a shift in strategy from a defensive nature to an offensive one. With Phase II the offensive build up began and would continue till shortly after the war ended. Thus Phase II supported Desert Storm – the eviction of Iraqi troops from Kuwait. In the Phase I deployment the CRAF brought approximately 110,000 U.S. troops to Saudi Arabia, and in Phase II the CRAF brought roughly an additional 211,000 troops. Altogether the total troops carried by the CRAF were 321,000. Phase II also included a significant lift of military sustainment cargo and the movement of U.S. troops from Europe. These European based troops originally tasked to NATO, were freed up as the Cold War was coming to an end. The phase I deployment paralleled Desert Shield by placing sufficient troops on the Arabian Peninsula to counter the threat posed by Saddam Hussein. The augmentation of the additional troops, approved by President George H.W. Bush, as discussed in the previous chapter, was begun in December and was designed to transform the

249 Serling, When the Airlines Went to War, 302.
250 Priddy, The CRAF in Operations Desert Shield, Desert Storm, VI-VII.; and Matthews & Holt, So Many, So Much, So Far, So Fast, 37.
251 Priddy, vii.
defensive force into an offensive one. In addition to carrying troops from the continental United States, the CRAF, as previously noted, also ferried U.S. troops from Germany into the Persian Gulf during the Phase II buildup.252

What is not commonly discussed or included to any great extent in the literature on the CRAF, was the redeployment or the returning of the troops to their home bases. Since it was a separate movement in which the CRAF played the major role, we will include something about it here. In our discussion, and for our purposes, we will call the redeployment Phase III. The CRAF carried more than 64 percent of the troops and 27 percent of the military’s cargo during the first two phases of deployment.253 On the redeployment the CRAF carried “80 percent of the troops and 40 percent of the airlifted cargo.”254

No one was sure just how well the CRAF would perform once it was activated in a crisis. It had been thirty eight years since the CRAF program was established and it had yet to be put to the test. Once activated, the coordination of many different airliners from various locations throughout the country would be a complex task. Aircraft from more than two dozen airlines were dispatched to multiple military installations across the country to pick up troops and materiel, continue to an intermediate point in Europe, and complete the journey to one of several locations in the desert of Saudi Arabia. The aircraft with its crew then had to return to its home base on a reciprocal route. Fortunately for the civil air carriers, the complexity of the operation was MAC’s responsibility. All they had to do was go when and where they were instructed. It was the air carrier’s responsibility to operate the aircraft and the military’s (MAC) responsibility to manage the operation. The air carriers had to allocate the total number of aircraft committed to the particular CRAF stage (I, II or III) and have four crews per aircraft on the “ready.” Just how this would all come together in a crisis, and what impact this would have on the airline industry, remained an unknown factor. As a matter of fact, on August 1, 1990 just hours before (given the time difference), Saddam Hussein launched his invasion of Kuwait, a meeting was convened in Washington between the CRAF Study Group, which consisted of several representatives of the U.S. air carriers, and members of the National Defense Transportation Association (NDTA), to study the impact a CRAF activation would have on the nation’s airline industry. The meeting

252 Priddy, The CRAFT in Operations Desert Shield, Desert Storm, 123.
253 Matthews & Holt, So Many, So Much, So Far, So Fast, 37.
254 U.S. House of Representatives, Reauthorization Act, 78.
was focused on finding the answers to several hypothetical questions that might arise during a prolonged activation of the CRAF. The attendees did not draw any definitive conclusions and adjourned with varying opinions and differences. In less than twenty-four hours however, the conditions for the very first activation of the CRAF were at hand, and so would the answers to their questions.\(^{255}\) Iraq had launched a full-scale invasion of Kuwait and was massing troops along the border with Saudi Arabia.

MAC coordinated the CRAF operation out of Scott Air Force Base in Illinois. Most carriers had a representative at Scott and a coordinator at their principle operating base. These civil airline coordinators were known as Mobility Representatives (MOBREPS). Thus the link between the military (MAC) and the air carrier was simple and direct. The complexities of the operation were handled at Scott AFB by a team of military experts drawn primarily from those with logistical, operational, and flight scheduling backgrounds. The air carriers – for the most part – managed their flight operations out of their company’s own operation-coordinating centers. The managerial structure of the CRAF operation was planned with meticulous care and was worked out over the years; but it was not without its hitches. In this Chapter we will include a description of the people and facilities that handled the mechanics of the operation. The chapter will also focus on the performance of the CRAF during its first activation within the context of the Persian Gulf War of 1990-91, also as known as, Desert Shield/Desert Storm. We will discuss the problems that were encountered and highlight some of the major achievements of the CRAF.

**Initial Problems**

There were several initial problems that had to be dealt with upon the activation of the CRAF. The first was one of scale. If the CRAF were to be activated, additional aircraft and civilian crews would have to be made available for government service than were normally in service with the DOD during peacetime. This would present problems for the military on how best to integrate civil air carriers, their people and aircraft, into its facilities and into its airspace, particularly into its tactical airspace during a war. From the airlines standpoint, the loss of aircraft and crews to government service would have to be absorbed while they attempted to maintain their normal commercial operations, and remain competitive within the marketplace.

Distance compounded the issue. Additional relief crews and support personnel would have to be

\(^{255}\) Priddy, *The CRAF in Operations Desert Shield, Desert Storm*, 47.
stationed at several intermediated points along the way. In the case of flying from the continental United States to the Persian Gulf, two long-haul international segments had to be negotiated. The amount of men and materiel to be carried over that great distance was monumental; and as previously discussed and highlighted, there was a limited time in which to accomplish the task. The second problem was that some of the civil air carriers would be flying off line and into places where they lacked any personnel and facilities. There was no question of routinely using U.S military airbases on the European Continent for stopovers. These facilities were limited to begin with, and were saturated with MAC’s organic aircraft in addition to hosting tactical aircraft transiting on their way to and from the Persian Gulf. The advantage here went to air carriers like TWA and Pan Am which both had extensive route structures on the European continent and flew scheduled service from the U.S to two or more of the principle CRAF stopover points in Europe: Brussels, Frankfurt, and Rome. Rome was, for both air carriers, the major transit point on the way to the Persian Gulf. Once in Rome these carriers enjoyed their own facilities and personnel; in addition to having long-established crew hotel contracts and ground transportation infrastructures in place. America West, United, or American Airlines on the other hand, had to subcontract with one of the “host” U. S. carriers already in place, or deal, in our example, with the Rome Airport authorities directly. Obviously the Italian government, as part of the coalition, was doing all possible to iron out any wrinkles in the operation. Part of the CRAF program calls for one U.S. air carrier to be designated as the “Senior Lodger” whose responsibility was to assure that all off-line CRAF carriers transiting their station had the support they needed. This entailed having all the facilities and amenities required, such as crew facilities, fueling, maintenance, catering, and other operational support in place for any CRAF carrier transiting its station. The Senior Lodger program however, was only in force during Stage III of the CRAF activation. Stage III was never activated during the crisis, so most offline carriers fended for themselves with some assistance of MAC representatives on the ground at most stopover points including Rome. These Air Force coordinators, whose unit name was, “Airlift Control Element” ALCE (pronounce Al see) for short, facilitated the onsite coordination between the military and the CRAF members at most points along the itinerary. The assistance provided by the ALCE group however, was mission specific, and was not a substitute for the

256 Priddy, The CRAF in Operations Desert Shield, Desert Storm, 93.
257 Ibid., 116
258 Chenoweth, The Civil Reserve Air Fleet and Operation Desert Shield/Desert Storm, 45.
Senior Lodger. All the CRAF carries were on equal footing when it came to flying into Saudi Arabia. Only Pan Am among the CRAF carriers had flown schedule service into the Kingdom, but at the outbreak of the war not even Pan Am was flying-in to Saudi Arabia. The advantage here was that all CRAF carriers arriving in Saudi Arabia were handled by the U.S. military or their contractors. Several of the carriers that participated in the CRAF had little or no experience working military missions even in peacetime. On the other hand, some of them had a fair amount of experience in this area, working peacetime missions for the military. Many of their crew members had been flying in and out of military bases carrying troops and military cargo for years, but very few had any experience flying into a war theater. There were however a few active civil crew members still flying that flew support missions into Vietnam during that war. As a matter of fact and as previously mentioned, there were already 28 civil aircraft in service with the DOD when the war first broke out. Although many civilian crews had gained some experience flying military charters – as they were called – the vast majority of crew members lacked any familiarity in this area of expertise. In addition airline personnel other than crew members, who had no experience with the military, would be called on to contribute to the CRAF activation. These are only a few of the problems that had to be overcome to make the CRAF operation a success.

The CRAF at the Outbreak of War

After 38 years of negotiations, agreements, studies, modifications, and enhancements between MAC and the nation’s air carriers, the CRAF program was finally going to be tested – not in an exercise – but in war. At the outbreak of hostilities a fully activated CRAF represented 31 U.S air carriers and over 500 aircraft.* This amounted to 50 percent of the nation’s airlift capabilities and “represented fully 90 percent of its passenger lift and more than 30 percent of the cargo lift available to deploy and sustain U.S. troops in a full scale war.”259 These figures represent the full capability of the CRAF. In the Gulf War however, only a fraction of this capability was actually used.

On August 4, as the crisis brought on by Iraqi invasion of Kuwait began to escalate, the U.S. Transportation Command (USTRANSCOM) activated its Crisis Action Team (CAT), and on the

* All data pertaining to the structure of CRAF reflects the CRAF as it was during the period under examination, 1990-1991. The Structure of the CRAF was greatly altered after the war and still is updated and modified from time-to-time.

259 Priddy, The CRAF in Operations Desert Shield, Desert Storm, 34
same day, following suit, the Military Airlift Command’s CRAF Unit (MAC CRAF) activated its Crisis Action Team at Scott Air Force Base. It was the responsibility of the MAC-CRAF Crisis Action Team to coordinate the movement of troops, the assignment of a civil air carrier to a point of origin, designated as an airport of embarkation (APOE), and assign it a destination in Saudi Arabia known as airport of debarkation (APOD), including arrival and departure times. The individual mission was considered a ‘movement’ and the CAT would pass the movement information along to the air carrier representative at Scott AFB or a representative located at the air carriers operational-coordinating center. All movement orders passed directly from the MAC Crisis Action Team to the airline Mobility Representatives (MOBREPS). In the words of Colonel Priddy, Director of the CRAF Crisis Action Team at Scott AFB; “the MOBREPS suddenly became a catalyst for all levels of operation in the carrier organization.” The MOBREPS would then initiate an internal movement message to all those within their organization assigned to the CRAF. In many instances this was in the form of a movement telex giving all of the specifics of the operation such as; type of equipment (aircraft type e.g. B747) flight itinerary including date, times, APOE and APOD. Notification went out from Scott AFB 24-48 hours in advance in order to give the carriers some lead time. From that point on it was the responsibility of the air carrier to have its aircraft and crew at the APOE ready and prepared to fly the complete mission to the APOD via a stopover point in Europe. We will highlight one air carrier’s (Pan Am) Mobility Representative below, and hear in his own words how he put into action and fulfilled his responsibilities when the call to duty came. Thus MAC maintained mission control and the air carriers maintained operational control. Operational control meant the air carriers had to arrange their intermediate stopover points, crew changes and all ground servicing including: maintenance and spare parts, meal/beverage service, and fueling. The operational control allowed the air carriers to fly according to their own FAA approved operating and maintenance procedures, manuals, and crew requirements. Any exceptions had to be approved by the FAA on an ad hoc basis. This simplified and common sense approach allowed the air carriers to fly the mission as they would any scheduled service, in a practiced and routine procedural manner. This does not mean that there were not any practices and procedures that

261 Ibid., 73.
262 Ibid., 74.
263 Ibid., 71.

differed. Indeed there were some practices and protocols that had to be observed in a “military manner” that remained outside of any operating procedures and made these flights anything but routine. 265 The nature of assignments however was ad hoc, and this left the airlines in an unfamiliar situation.* The air carriers were used to doing business in accordance with long established procedures and advanced planning. This allowed crews to bid lines in advance and maintenance personnel to plan and schedule maintenance. In this case however, the airlines were on short notice. MAC had no choice as lead time was never more than 48 hours. Colonel Ronald N. Priddy had this to say about the airlines' initial problems:

Some new carriers were flying in the deployment, so it became necessary to bring all carriers up to date with the operation. A whole new learning cycle had to be absorbed as these carriers flew their first missions to Saudi Arabia. All the carriers being added under the activation were scheduled carriers. They knew little about charter operations and, with the exception of Northwest, rarely flew international military charters. Many carriers had never flown to the Middle East. Many had no crew support system in Europe and therefore lacked contracts with the various support companies at airports where they would have to service their aircraft. This brought several days of around-the-clock efforts by these carriers to prepare their airlines for military operations. More heroes were made in the carrier industry in the last two weeks of August 1990 than had emerged in the previous decade.266

On August 7, 1990 the deployment orders were given and a massive air and sea lift were underway. Three aircraft carrier groups were given orders to begin steaming for the Persian Gulf and the Red Sea: The USS Independence from the Indian Ocean, the USS Eisenhower from the Mediterranean Sea through the Suez Canal, and the USS Saratoga from the East Coast of the United States.267 The first ground forces enroute, were units of the 82nd airborne who were being flown from Pope Air Force Base just outside of Fort Bragg, North Carolina. Thus began one of the largest deployments of military forces since WW II and one of the fastest in history. While the sealift was tasked with delivering the major share of heavy equipment, the airlift was assigned the troop movements, and sustainment and priority cargo. Civil aviation would be responsible for a major portion of that task. In this way MAC’s organic aircraft were freed up to carry much of the oversized and outsized cargo that had priority. From August 7, through August

265 Priddy, The CRAF in Operations Desert Shield, Desert Storm, 72.
* The operation was ‘Ad Hoc” from the air carrier standpoint, but for the military was all planned.
266 Priddy, 74.
267 Ibid., 53.
17, MAC was able to fill the need for airlift by using the 28 civil airliners then in service and under contract with the DOD, as noted in the previous chapter. On August 17, 1990, Stage I of the Civil Reserve Air Fleet was activated for the first time in its thirty-eight year history.

By day nine into the deployments i.e. the first nine days before the activation of the CRAF, the civil carriers then in service with the DOD, transported 6775 troops and over 750 tons of cargo into the theater of operations. The numbers represented a short fall, as these missions had the capability to carry another 1200 troops and 150 additional tons of cargo had the military been fully prepared and ready for deployment. Throughout the deployment – more so in the earlier stages – there remained a difference between projected loads and actual. This was primarily due to two reasons: the first was that weight assigned for each troop and his baggage plus equipment, was coming up heavier than planned; and the second was that planning the arrival of troops to meet up with their equipment was not always synchronized. When loads come up heavier than planned something had to be left behind. Aircraft have weight limitations. There is a structural limitation i.e. a limit to how much weight an aircraft can carry; and there is a takeoff weight limit or how much weight an aircraft is able to takeoff with. The difference in the two weight restrictions is determined by the fuel load. The more fuel an aircraft takes-on, the less payload it can carry. Military units not fully ready for deployment, caused a rescheduling of movements but not necessarily a reshuffling of flight assignments. In some cases CRAF aircraft arrived at a location only to be advised that the deployment was cancelled. These problems however were few, and to a certain extent expected due to the nature of the operation.

**The Activation (Phase I)**

Although carriers were assigned ad hoc movements, there was however a definite order of deployment according to CENTCOM’s plan which was also related to the arrival of a unit’s equipment. It did not make any sense to have a tank unit’s personnel in the desert and their tanks somewhere in the middle of the ocean, or a helicopter squadron grounded while waiting for their ‘choppers’ to arrive. The sustained deployment of most units gave the air carriers a bit of routine. After the 82nd airborne – the first unit to be positioned in the desert – was fully deployed from Pope AFB in North Carolina, the CRAF was assigned to move the 7th Marine Expeditionary

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269 Ibid., 64-65.
270 Ibid., 77.
Brigade (MEB) from Twentynine Palms California. This trip, as all those from the West coast, added another 3000 miles to the 7000 plus mile international portion of the trip and required another stopover stateside plus crew change. The 7th MEB unit was followed by the 24th Infantry Division out of Fort Stewart Georgia. The movement of the 24th Infantry reached up to 2000 troops per day. An average capacity of the B747 was 350 passengers, so 2000 a day would require approximately six 747s daily. Some air carries did not have 747s in their inventories, and flew L1011s or DC10s. The mix of different carriers with a variety of different equipment only added to the total amount of movements per day. The 24th Infantry movement was overlapped by the movement of the 1st Marine Expeditionary Brigade out of Kaneohe Hawaii. The 1st MEB departed Honolulu International Airport and in addition to the troop flights, they were supported by three CRAF cargo flights. Following the 1st MEB, the 101st Airborne began to deploy out of Fort Campbell Kentucky. From September 5th to the 24th thirty-five CRAF flights carried over 12,000 troops from the 101st into the desert. The 101st was followed by the 3rd Armored Calvary Regiment and the 1st Cavalry Division out of Robert Gray Field at Fort Hood Texas. In sixty days the CRAF carried over 20,000 of these troops into the desert.271 The goal according to General Schwarzkopf was to move 120,000 troops and their equipment in four months, “on the timetable we promised the President.”272 These units made up the majority of the Phase I deployment of ground forces.

The airlift was not without its problems. Before Stage I CRAF was activated, MAC was taking advantage of the volunteer aircraft already in service. More aircraft could have and would have been volunteered except that commercial insurance rates began to rise rapidly, which made airline officials reluctant to offer additional aircraft and held back some carriers from volunteering at all. The insurance issue would bloom into a full blown crisis on its own and will be dealt with separately. The increasing demand for lift and the lack of any additional air carriers volunteering was instrumental in MAC’s decision to activate CRAF Stage 1.273 The competition among military units competing for space on the limited number of airlift assets created a gap between planned and actual loads. Some unit commanders decided to bring additional personnel and more materiel than needed or planned for. The snowballing effect reduced the available

The rush to get troops into place caused other problems that the untested and unrehearsed airlift had to work out. One had to do with the movement of the 7th MEB discussed above. Because of a planning mishap twenty-three CRAF missions assigned to carry elements of the 7th MEB had to be cancelled. Once committed with aircraft and crews, any change in plans is costly and usually unrecoverable to the air carriers. The waste of assets, possibly needed elsewhere, was also costly to the government. The DOD would have to reimburse the lost revenues to the carriers, and suffer the loss of the unused lift. In this case the MAC Crisis Action Team was able to reassign many of the flights – some were already enroute – to other missions. Only two flights out of the total had to be scrapped. Thus the skill of the CAT managed to offset the losses to the carriers and the DOD, and still salvage most of the available lift. Nevertheless similar situations arose from time-to-time throughout the deployment and resulted in some losses.

**Insurance Lapses**

Lapses in insurance coverage exposed some serious problems in how aircraft could be indemnified against loss. The insurance problem threatened the very existence of the CRAF program. When the CRAF was activated some commercial insurers canceled coverage outright on the aircraft assigned to the CRAF citing the war risk clause. In some cases, insurers increased rates to unsustainable levels. In spite of this, several air carriers continued to volunteer aircraft but others hesitated. In a statement to the Subcommittee on Transportation and Infrastructure: House of Representatives, May 1, 1997, concerning the Reauthorization of the War Risk Insurance Program, Major General Gary Voelleger stated:

274 Schawzkopf, *It Doesn’t Take a Hero*, 360.
276 Ibid., 77.
While the Title XIII war risk insurance program during the Persian Gulf crisis provided a minimum level of insurance coverage, major inefficiencies were clearly evident. It was due to the patriot desire of our carriers to support our nation in times of crisis that they continued to fly missions to the crisis area.\textsuperscript{278}

The War Risk Insurance Program referred to as Title XIII Insurance (hull insurance) comes under the control of the Federal Aviation Administration (FAA) and is meant to protect “contract air- operations conducted in the national interest.”\textsuperscript{279} In effect since 1951, the War Risk Insurance Program has been revised and updated several times over the years. It was, at the time, a cumbersome and inefficient program and provided only minimum coverage. Under this program each aircraft insured had to be specified by tail number. In case of an aircraft swap, which the CRAF program allowed, the carrier would have to reapply under the new aircraft number for continued coverage. In the early days of the deployment the air carriers had to apply for coverage under Title XII “on a mission to mission basis.”\textsuperscript{280} The coverage applied to returning aircraft only when the aircraft returned from a mission empty. If an air carrier picked up a commercial sector on the return, there was no coverage. This particular stipulation, which still remains in effect today, cost the airlines quite a bit in lost revenue opportunities. Thousands of aircraft flew empty across the Atlantic returning to the United States when shipments from Europe were on hand and ready to go. These were all lost revenue opportunities for the carriers. In most cases however, the government did make the necessary changes to the coverage. In addition to the Title XIII program they instituted a second type of coverage called DOD Indemnification. In this case the DOD would cover war related damage while encouraging the carriers to maintain commercial policies which the DOD would also subside. The commercial coverage would cover non war related damage such as bird strikes or ground damage.\textsuperscript{281} The government insurance program was designed to cover damage associate with war.

The Phase I deployment lasted from August 7 through November 1990. The CRAF flew approximately 800 mission both passenger and cargo. They carried approximately 110,000

\textsuperscript{278} House of Representatives: Hearing on Reauthorization of the War Risk Insurance Program, 79.
\textsuperscript{279} Chenoweth, \textit{The CRAF in Desert in Operations desert Shield, Desert Strom}, 21.
\textsuperscript{280} John W. Leland, \textit{Air Mobility in Operation Desert Shield and Desert Storm: An Assessment}, in \textit{The Eagle in the Desert}, 75-76.
\textsuperscript{281} Chenoweth, \textit{The Civil Reserve Air Fleet and Operation Desert Shield/Desert Storm}, 21-22.
troops and roughly 42,000 tons of cargo into the theater mostly from the continental United States.  

Other Problems

There were several other problems that we will examine, which had more to do with integrating civil aircraft and civilian crews into a military and hostile environment, than with the CRAF Program itself. They were as follows: dealing with Scud Missile attacks, protective gear for crew members, and communications. The Scud missile attacks began on January 18, 1991 two days after the air war on Iraq begun. Although the Scuds were an antiquated missile system and very inaccurate, they struck terror into many because of their nuclear, biological, and chemical capabilities. They were fired from mobile launchers during nighttime hours which made them hard to detect and take out. The Scuds had a range of 400 miles which put most, if not all, cities on the Arabian Peninsula served by the CRAF within range. On more than one occasion CRAF aircraft on the ground in Saudi Arabia were made to stop off-loading, takeoff, and remain in a holding pattern out of missile range until the threat was over. The Iraqis would only launch the Scuds at night for fear of detection. The civil air carriers requested that MAC suspend all night arrivals and reschedule all CRAF movements to arrive in the desert during daylight. The request was granted at the expense of greater efficiency. This all took place during Phase II deployment and the increased cargo missions resulted in a greater strain on the air traffic system and ground handling facilities at the arrival points (APODs).

The threat of chemical warfare on the part of the Iraqis was viable. Saddam Hussein used chemical weapons against his own Kurdish population and against the Iranians in the Iran-Iraq War (discussed in the previous chapter). The Scud missiles that the Iraqis were sending regularly into Saudi Arabia had the capacity to deliver nuclear, biological, and chemical warheads. There was a failure in MAC’s planning in not preparing and making available protective equipment for civilian crews to use in case of a chemical or gas attack. The civilian crew members had no training in the use of this gear and it was not even made available when they first began arriving in the desert. Once MAC became aware of the omission, they provided the protective gear in sufficient quantities and distributed them out to each crew member at their stopover point on the

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282 Matthews & Holt, So Many, So Much, So Far, So Fast, Table E III-2 40.
283 Yetiv, The Persian Gulf Crisis, 35.
284 Ibid., 101.
Continent. MAC’s ALCE group also conducted a crew briefing session on the use of the equipment. The equipment remained in the crew’s possession until they transited the stopover point on the return flight where it was returned to the ALCE representatives.

Communications, outside of the aeronautical radios, between the military and the civil air sector were incompatible. Surprisingly there was not much in the way of preplanning before the war to address the situation. It was not that civil aviation and military systems used different terminology; the problem was more technological in that civil aviation communications systems did not interface with the military’s. There were two areas of concern: One was the communications between the air carriers and its home base which was responsible for the operational control of the aircraft. The problem arose once the aircraft was in the theater of operations. The common airline international communications network, Aeronautical Radio Incorporated, referred to as ARINC provided communication between the aircraft and its home base, except when it was approaching its destination in Saudi Arabia. At the time, ARINC did not interface with the military’s Global Decision Support System (DGSS). The DGSS is a Command and Control system and communications network that interfaces with other systems used by the military. This problem was temporarily resolved by requiring the civil aircraft to report through ARINC its arrival information two hours prior to arriving in the desert. The information was then relayed to MAC through normal communication channels. The second area of concern was the link between the air carrier and the military. The military was willing to rekey the carrier’s arrival and departure information into the GDSS as long as it was in a simple unified format, which was later agreed upon. Another problem arose when the military’s system would not accept any information unless the civil air carrier’s registration number (registry number of the aircraft) was in GDSS data base. The data base had to be periodically updated especially when the airlines had to swap (replace) one aircraft for another. Airline cockpit crews were given military radio frequencies during their stopover in Europe to communicate with MAC command and control personnel on the flight’s progress. The communication incompatibilities were high on the list of issues to be resolved after the war. In the next chapter (chapter 6) one of the pilots interviewed for this dissertation will have more to say about the communication problems.

287 Ibid., 91-92
Phase II Deployment

On November 8, 1990 President Bush announced that another 250,000 troops would be sent into the Gulf, to give the existing forces an offensive capability.\(^{288}\) The MAC Crisis Action Team was facing a dilemma. As discussed in the previous chapter, MAC did not want to activate Stage II CRAF just before the beginning of the peak holiday travel season. Such an action would have greatly cut into the airlines’ profitability and only serve to discourage CRAF participation. On the other hand the additional troops earmarked for deployment were not yet ready to deploy. It was looking more and more like both: the peak holiday travel season and Phase II deployment of additional troops might coincide. The situation was exacerbated by the need for additional lift as a result of the backlog of cargo. More and more sustainment cargo was needed to support the troops the longer they remained in the desert. The need for additional airlift was increasing just as the holiday season was approaching. It was at this point that several airlines were able to volunteer more aircraft. MAC also enhanced the volunteer effort by offering advanced contracts on peacetime business. Fortunately for some carriers, especially the International ones, transatlantic traffic was down as the crisis and the rumors of terrorism kept many Americans from traveling aboard. This situation freed up additional long range international aircraft, just the type needed for the Phase II deployment. In most cases this was the Boeing 747. The 747 was the workhorse of the CRAF. In addition to carrying the most passengers it “could carry as much bulk cargo as three or four C-141s.”\(^{289}\) The Phase II deployment would stretch the system. MAC needed 3500 seats a day coming from the U.S and another 2500 seats a day from Europe. That figure (2500 seats per day) alone would require at least seven 747s and that’s on a one day turnaround.\(^{290}\) The transatlantic sector would require up to ten 747s to accommodate the additional number of troops; but the exceptionally long distance of the trip had to be broken up into two 7-8 hour plus international segments, which would more than double that requirement. Since there were only seventeen 747s then activated in CRAF, MAC had to make some adjustments, as tweaking the target number of seats needed, to temporarily converting fifty C-141s into passenger configurations in order to assist the CRAF in troop deployments.\(^{291}\)

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\(^{289}\) Matthews and Holt, *So Many, So Much, So Far, So Fast*, 79.

\(^{290}\) Priddy, 118.

\(^{291}\) Matthews & Holt, Table E III-2 40., and Priddy, 120.
Phase II deployments began at Cherry Point Marine Corps Air Station in North Carolina where the 2nd Marine Division began deploying on December 8, 1990. In the official history of the Air Force’s 436th Military Airlift Wing (from 1 July to 31 December 1990) which was assigned to manage the movement, it says:

From 3 December 1990 through 11 January 1991, members from the 436th ALCE helped make Marine history at Cherry Point Marine Corps Air Station, NC; The ALCE was responsible for the movement of the 2nd Marine Expeditionary forces from Camp Lejeune, NC to awaiting aircraft at Cherry Point. Over 6998.87 tons of cargo and 27,372 passengers were onloaded onto 223 aircraft. Despite the complexity of this move it was a successful one. It was the largest deployment of Marines by air in history. The majority of those ‘awaiting aircraft’ were from the CRAF. Other movements from phase II originated at Fort Hood Texas where the 13th Sustainment Command embarked. The 5th Marine Expeditionary Brigade (MEB) and the 11th Marine Expeditionary Unit (MEU) embarked from San Diego, and from Fort Riley, Kansas the 1st Infantry Mechanized Division embarked. Additional troops were deployed from Frankfurt, Stuttgart and several locations in England. By the time phase II got underway the airlift was in to its fifth month. The improvements in scheduling, and coordination of movements began to pay off. Experience also had a lot to do with the improved efficiencies. Colonel Priddy sums up thus;

CRAF flew more than 1150 missions between November 1, 1990, and January 16, 1991 (the day before Stage II CRAF was activated and the war begun) that is an average of 15 missions every day, including Thanksgiving through New Year’s Day holiday season. CRAF moved more than 42,000 tons of cargo, and 142,000 troops in Phase II, an average of 545 tons of cargo and 1844 passengers per day...The largest single day for CRAF deployment missions was December 26, when 30 missions were flown.

The activation of Stage II CRAF on January 17, 1991 was modified to include only cargo aircraft. The need for additional passenger lift was still being met by the CRAF Stage I and volunteer aircraft. The airlift continued until the President announced that a ceasefire had taken place. In keeping with the American promise to the Saudis, the United States Transportation

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293 Priddy, 123.
294 Ibid., 138.
Command (USTRANSCOM) began planning the immediate withdrawal of U.S. Forces from the Saudi Arabian Peninsula.

**The Redeployment (Phase III)**

By February 28, 1991 the plans for the redeployment of U.S Force to the United States or to their bases in Europe were underway. USTRANSCOM wanted to conduct a ceremonial redeployment whereby the first troops from each unit arriving home would have a ceremonial welcome. The plan also called for participation of each civil carrier which had flown Desert Shield/Desert Storm missions, to fly at least one ceremonial redeployment flight, preferably to their home base. The planning was intricate as it included arrival times best suited for family, friends and various local dignitaries to be on hand. The flight home, as the original deployment flight, had two stopovers; one in Europe, and the other at an east coast gateway city. Custom clearance was setup at the point of origin to ease the red tape the returning soldiers and Marines would otherwise have had to endure on arrival. The planners set the daily quotas quite high and made the commitment to bring home the longest serving troops first. The bye words were first in, first out. The redeployment was on a faster timetable than the deployment. Plus the sustainment missions had to continue as long as there were large scale forces still in the desert. The scramble was on once again to produce sufficient lift to accommodate the high quotas planned. Initially set for the return of 4500-5000 troops per day, the goal was an ambitious one. The objective was to return between 15,000 to 20,000 troops every four to five days. Once again the C-141s were called on to carry passengers. Even with the assistance of the C-141s which could carry up to 125 passengers, the available Stage I CRAF and volunteer aircraft could not possibly make the quota. Each trip from Saudi Arabia to the home base located somewhere in the continental United States had an average roundtrip cycle of 2.5 days. As CRAF Stage II was still in effect, MAC required those carriers that had convertible passenger /cargo aircraft in service, to convert them all back into passenger configurations. The redeployment was intense and CRAF averaged 13 missions per day with an all-time high of 20 passenger missions on March 20\textsuperscript{th}. In terms of troops carried twenty missions represented 7000, far in excess of the goal. By late

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296 Ibid., 168.
March CRAF caught up to the redeployment schedule. In the redeployment the CRAF cargo operation flew 772 missions from March to May 1991. By May 15, 1991 MAC began to deactivate the CRAF. On May 17, CRAF Stage II was deactivated and on May 24, Stage I was deactivated along with the MAC Crisis Action Team at Scott AFB. Civil air carriers continued to fly missions into the desert as part of the DOD’s peacetime contracts. The deactivation of the CRAF did not end the participation of the civil air carriers in the operation. It only meant that the airlift needs were met by volunteer civil air carriers, outside of the CRAF structure.

**The Achievements of the CRAF**

The achievements of the CRAF operation are in the statistics and numbers cited above and throughout this work. Much of the success is due to the many men and women of the civil air carriers (CRAF) who supported the operation and those who actually flew the missions. We will focus on them in the next chapter. Following are the civil air carriers that contributed the most to the effort.

Out of the twenty-seven U.S. air carriers that flew CRAF missions during Desert Shield and Desert Storm, three airlines: Northwest (NW), American Trans Air (AMT), and Pan Am (PAA) contributed the most during the crises. Northwest carried 19,078 tons of cargo and 63,155 troops, Pan Am carried 12,419 tons of cargo, and 51,900 troops, and American Trans Air carried 11,818 tons of cargo and 46,046 troops. Other U.S air carriers also made significant contributions, including Federal Express and Evergreen International Airlines, two exclusively cargo airlines which carried 33,825 and 12,185 tons of cargo respectively. On the passenger side World Airways carried 46,046, Tower Air 41,906, and United 35,150 troops into the theater. The remainder of troops and cargo were spread over the other 19 carriers. The three top carriers flew a total of 1,167 missions, including the redeployment: PAA flew 371, NW 357, and AMT 439. Of the 5000 plus CRAF missions there were no fatalities, no major accidents, and no major incidents. On the three claims received: (1) a bird strike, (2)

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299 Ibid, 182, 184
300 Matthews & Holt, *So Many, So Much, So Far, So Fast*, 44
301 Chenoweth, *The Civil Reserve Air Fleet and Operation Desert Shield/Desert Storm*, 74 Table A.1
302 Matthews and Holt, 83.
ground damage when an aircraft wing clipped a pole, and (3) water damage due to an overflowing toilet. All were covered by the carriers’ commercial policies.  

In Matthews’ and Holt’s authoritative work on the strategic deployment for Desert Shield/Storm they write;

The deployment’s complexity and immensity invites historical comparison. During the first three weeks of Desert Shield, USTRANSCOM moved more passengers and equipment to the Persian Gulf than the United States transported to Korea during the first three months of the Korean War. By the sixth week the total miles flown surpassed that of the 65-week-long Berlin Airlift. 

The Desert Shield/Desert Storm airlift was the largest airlift in history and not only surpassed Berlin airlift but replicated it, in miles, every six weeks. Considering that the average miles flown on the Berlin airlift was 300 miles while the average miles flown on Desert Shield/Storm were a minimum of 7,000 miles and in some case over 10,000 miles; this was quite an achievement. 

The CRAF flew 5078 missions in support of Desert Shield and Desert Strom including the redeployment. The buildup was not only the largest deployment of troops by air, but was the fastest. The redeployment also holds the record for largest and fastest operation of its kind. The CRAF is credited with carrying the largest share of troops. The CRAF was primarily responsible for the historic deployment of U.S. Marines – largest airlift of Marines in history – from Cherry Point Marine Corps Air Station in North Carolina. The CRAF remains responsible, under the U.S. Air Policy, to carry 90 percent of the troops and 40 percent of the military’s cargo. By assuming this responsibility the CRAF saves the government (taxpayers) billions of dollars in expenses over the years, by lifting the burden off the DOD to buy and maintain a fleet of transport aircraft and crews in peacetime, ready to respond in the event of a crisis or national emergency. A 1994 General Accounting Office (GAO) audit reported that the CRAF saved the taxpayers from $1 to $3 billion dollars annually over a thirty year period. As private enterprises in the marketplace, U.S. air carriers bear this cost as long as they remain profitable. A healthy U.S. airline industry assures the continuation of the CRAF program and its contributions to the national defenses and security.

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303 U.S. House of Representative, Hearing on Reauthorization of the War Risk Insurance Program, 73.  
304 Matthews and Holt, So Many, So Much, So Far, So Fast, 12.  
A Case Study of an Airline MOBREP, Lucio Petroccione, Pan Am

The Mobility Representative (MOBREP) interviewed for this dissertation, was Lucio Petroccione from Pan Am. Lucio gives us an insider’s view of his duties, and his thoughts, as well as what it is was like working during CRAFT’s initial activation. Petroccione was the principle coordinator between Scott Air Force Base and Pan American World Airway at JFK. Lucio began his airline career over twenty-five years ago for New York Airways. Since that time he has worked for United, Continental, Air France, Pan Am, and Delta. After Pan Am went out of business Lucio brought his talents and experience to Delta where in 2003 he coordinated Delta’s CRAFT operation with Scott Air Force Base during Operation Iraqi Freedom.

During Desert Shield/Desert Storm Lucio was responsible for the coordination, planning, and preparation of all of Pan Am’s CRAFT flights. This included: preparing all the documents for each flight, obtaining flight clearances, providing catering, and furnishing the proper security codes to the captains. Each morning Pan Am would have three aircraft and three crews on the ready, as the minimum CRAFT requirement. The first thing in the morning Lucio would receive a call from Scott AFB, on the secure phone line with Pan Am’s mission assignments for the day (movement message). The daily assignments were essentially a directive telling the air carriers when and where to go, who to pick up – military units – and the other specifics of the flight. Lucio was working at JFK as part of Pan Am’s System’s Control Center, and as such was in direct contact with: flight dispatch, crew and aircraft scheduling, maintenance, catering, reservations, and Pan Am’s worldwide network of stations. In his own words he was “on the line with Scott AFB at least twenty-five times a day.” His office was located in what was called the “backroom.” He and two others did all of the CRAFT coordination out of his small office which was called the cube. As a matter-of-fact, Lucio says it wasn’t even an office. His ‘cube’ was nothing more than his desk, several phone lines, including the secure line to Scott AFB, and a map of the world covering the wall. The map was covered with pins showing where all Pan Am CRAFT flights were at any given time. Lucio said the military was amazed at how small his ‘cube’ was but how efficiently the Pan Am’s operation ran. By comparison Lucio said: “American Airlines had thirty-five people working in a room three times larger than our System’s Control Center,” and this was related to him by the American Airlines MOBREPS he met at Scott AFB. Lucio added: “Pan Am was the go-to airline whenever MAC needed something above and beyond, which was

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308 Lucio Petroccione, Interview, Atlanta, March 15, 2011.
often. There were times when we had 6-8 flight missions operating simultaneously.\textsuperscript{309} Lucio was asked if there were any times that Pan Am was unable to meet its commitment to CRAF because there were not enough volunteer crews to fly the missions. His response was: “Never, the outpouring of volunteers was incredible! We had more volunteers than available aircraft; we had to turn away people. There was never a shortage of crews.”\textsuperscript{310} Lucio said they never had any formal training, but they did have several meetings and briefings by representatives from Scott AFB. All the secure phone lines were set up and in place well in advance of the CRAF activation. They were also audited several times by the DOD to assure they were following strict security procedures.\textsuperscript{311} As one of the unheralded, and in Colonel Priddy’s words, one of the “catalysts [MOBREPS] for all levels of operation in the carrier organization,”\textsuperscript{312} Lucio shared some of his thoughts on the operation and the airline people who worked the CRAF:

I have never seen such greatness in people, the Pan Am folks and the other airline folks just rose to the occasion, and everyone pulled together. There were many times we faced situations which called for improvisation and we always met the challenge. The coordination was exceptional.

[Lucio also shared with us an interesting historical perspective on the CRAF program. He told us]:
My father-in-law worked for Pan Am in the 1950s and was part of the CRAF startup team. He told me that watching me manage the operation was very meaningful to him, especially after thirty-nine years to see how it was implemented and how successful it all turned out.\textsuperscript{313}

Summary and Conclusion

In this chapter we covered the first activation of the Civil Reserve Air fleet and its performance within the context of the Persian Gulf War of 1990-91 known as Desert Shield/Desert Storm. The chapter was broken down into several component parts: Introduction, Initial Problems, CRAF at the Outbreak of War, Activation (Phase I), Insurances Lapses, Other Problems, Phase II Deployment, the Redeployment (Phase III), the Achievements of CRAF, and ended with a look at one of the airline MOBREPS who was interviewed for this dissertation. In the introduction we spoke about the three Phases of the deployment, the uncertainty about how the CRAF would perform in its first activation after being on the planning board for 38 years. We discussed the role of MAC within the CRAF and its responsibility to manage the movements

\textsuperscript{309} Petroccione, Interview.
\textsuperscript{310} Ibid.
\textsuperscript{311} Ibid. 
\textsuperscript{312} Priddy. \textit{The CRAF in Operations Desert Shield, Desert Storm}, 258.
\textsuperscript{313} Petroccione. Interview.
and operation; and the role of the airline members of the CRAF, and that was to operate, maintain, service, and crew the assigned flight movements. The MAC management team, operating out of Scott AFB, was called the Crisis Action Team (MAC CAT) and the airline coordinators who interfaced with the CAT were called Mobility Representatives (MOBREPS), together they formed the connecting links in the CRAF management and operational chain-of-command. We talk about the need for lift required, and the amount of aircraft available in the Stage I, supplemented by aircraft volunteered by the airlines. The need to activate CRAF Stage II was forestalled by MAC in order not to negatively impact the carriers during the holiday peak travel season. The spirit of volunteerism was strong as the carriers continued to fill MAC’s needs voluntarily. Only after the holidays and with the outbreak of war did MAC finally activate CRAF Stage II. We wrote about the European stopover points on the long trip over and the facilities and services provided. We discussed some of the problems the CRAF operation encountered which included everything from insufficient, and in some cases, outright lack of insurance and indemnity, crew vulnerability to Scud missile attacks, the initial lack of any protective gear for the crews while on the ground in the desert, and the lack of communication interface between the military and the CRAF carriers. The Phase I deployment of troops to Saudi Arabia and the Persian Gulf region had the goal to bring over a 100,000 defensive troop and their equipment to Saudi Arabia to forestall a possible Iraqi invasion. The operation was called Desert Shield. We discussed the major military units in the order of embarkation. We also reviewed the Phase II deployment, which was tasked with adding another 250,000 troops to provide an ‘offensive capability,’ and the units that made up that movement which included troops from Europe. We highlighted some of the civil air carriers and their achievements during the operation and the total number of troops and cargo carried. The redeployment was discussed and we noted how the carriage of returning troops was far in excess of the deployment. MAC decided on some ceremonial redeployments and included most of the CRAF participants in the honors. We highlighted the major CRAF participants and their contributions. We discussed the major accomplishment and achievements of the CRAF such as: the flawless operation, record number of troops and cargo carried which was far in excess of the Korea and Berlin Airlifts. Many military and airlift records were set during this operation which clearly illustrates the key role played by U.S. air carriers in the national defense through their participation in the CRAF.
The civil air carriers were there when the call came, as they were in WW II, Korea, and Vietnam. Each member airline which participated in Stage I CRAF had to be ready within 24 hours. The area in the world which the CRAF was asked to fly to was, for the most part, unknown to U.S. aviation, especially for those carriers whose primarily route system was the continental United States. The task was monumental, the distance extensive, and the time limited, but U.S. civil aviation was up to the challenge. In the next chapter we will look at the CRAF through the civilian participants, pilots, flight attendants, and operational personnel who made this operation such a success.

Underpinning all of these achievements was the volunteer nature of the CRAF. Not only do the air carriers volunteer to participate in the CRAF, but each individual crew member had to be a volunteer. It is to them – the individual crew members – that we turn to in the next chapter in order to put into perspective they key role they played in this successful wartime operation.
CHAPTER SIX
THE CIVILIANS WHO MADE THE CRAF HAPPEN

The flight crew and the passengers were chatting and joking for the first five hours of their trip from Germany. But the fun ended abruptly as their jet entered Saudi Arabian air space.

“When the seat belt light went on, the last 30 minutes there was not a word. Not a crew member, not a passenger, said anything,” recalls Brian Moreau 34, one of the flight attendants on board. The passengers were U.S. Marines reporting for combat duty in the Persian Gulf. Their airline was Pan Am, one of 27 civilian airlines drafted to help the military buildup. Jerome Idaszak, Chicago Sun-Times314

In a manner of reviewing what we have discussed to this point, and introducing our topic of focus, let us begin by saying: Civil aviation has contributed greatly to the nation’s defense and security ever since WW II. Experience gained by the both U.S. Military and Civil Aviation in World War II, Korea, and Vietnam led to a formal and structured partnership between civil and military aviation that culminated in the Civil Reserve Air Fleet. During Desert Shield/Storm that experience and partnership bore fruit beyond expectations. Although our emphasis thus far has been on the civil aspect of the partnership, it is important to note that the achievements and records set in that war were shared by both the military and civilian components working together. That is an important point; once activated the CRAF is just another component of the military while continuing to maintain its distinctive civilian characteristics. The separation however, lies in the areas of specialization. While the various components of the military are trained, equipped and prepared to go to war, the civil aspects are not. U.S. civil aviation is primarily concerned with commerce in a peaceful and orderly society. The participation of commercial aviation in a war is of course an anomaly; and the United States is the only country in the world to have a formal partnership between its military and its commercial aviation sectors. In the case of some foreign air carriers which are already owned by the state, coopting their assets lacks the voluntary nature that characterizes the relationship between the privately (or publically) owned U.S. air carriers and their government. Unquestionably, there is a sense of

duty and responsibility to the nation’s wellbeing that prompts the commercial sector to take this kind of voluntary action. Very few industries can play similar roles to the airlines’. No other industry can take so many of its most important assets and people and send them into a war zone to the extent that our nation asks of its civil air carriers. What is interesting and taken for granted, is that although the U.S. airlines volunteer their service, they cannot, and do not speak for their people. Each individual who serves on board a CRAF military mission must be a volunteer. The pilots, flight attendants, mechanics and operation personnel who flew missions in Operation Desert Shield and Desert Storm were all volunteers; they numbered in the thousands.

Nevertheless there is very little written, much less published, about them. We really know nothing about these people. We don’t know who they were; what their backgrounds were; how they were trained and what their experiences were; what dangers they faced, and what motivated them to volunteer in the first place. In trying to understand them, we begin with three known certainties: they numbered in the thousands, they were all volunteers, and lastly, they had no special training for this mission. Our lack of knowledge and understanding about the civilians who manned and operated the 5079 flights into the theater of operation before, during, and after the war leave us with a large segment of untold history. Nothing like this (CRAF operation) has ever happened in U.S. history on this scale. Because of the amount of civilian participation and the importance of their contributions, their story is one of the most interesting and important parts of the history of that war. This chapter is an attempt to fill the void, to introduce and tell the story of these unheralded heroes. The term (heroes) is not used lightly. They volunteered to go into harm’s way. The operation would not have succeeded and would not even have taken place, in the manner in which it did without them. Without the CRAF and its people another strategy, another timeframe, and another manner of transport would have had to be devised. Most assuredly it would have been more costly, more time consuming and more deadly. The question of the military’s success in these operations i.e. the defense of Saudi Arabia (Desert Shield), the victory over the Iraqi army and their eviction from Kuwait (Desert Storm), and the minimum number of casualties could not have come about within the given timeframe without the participation of the CRAF and its people. The contributions of the civilians who flew the CRAF missions were one of the keys to victory.

315 Chenoweth, *The CRAF and Operation Desert Shield/Desert Storm*, 74 Table A.1
General – Overview

This focus narrows in on those who played the most important part of the CRAF missions: the pilots and flight attendants. There were however some maintenance and operations support personnel who flew in on some of the carriers and we will consider them also. In the unlikely event that insufficient crew members did not volunteer, management pilots and flight attendants would have been forced to do so. We could find no information that this ever happened.

Beginning with the pilots, we have quite a homogenous group in that regardless of the air carrier they worked for, they all have so much in common. You might consider them all part of a professional fraternity as well as belonging to one of several professional organizations such as: the Airline Pilots Association ALPA, the U.S. Airlines Pilots Association USAPA (US Airways), or Allied Pilots Association APA (American Airlines). It is well to note that we are discussing only commercial airline pilots and not all civilian pilots. More importantly and significantly, 90 percent of pilots, during the period of our study, were drawn from the military.\(^{316}\)

A 1995 Rand Corporation report on the airline’s role in military pilot retention had this to say about commercial airline pilots;

> The U.S. military is currently the largest supplier of civilian airline pilots...At the end of the Vietnam War when the U.S. military had a surplus of pilots, the airlines took advantage of this and hired the bulk of their pilots from the military...Traditionally military pilots are the most valued, because of their rigorous training program and high levels of experience.\(^{317}\)

It would be safe then to assume that most of the civilian pilots who flew the CRAF were former military pilots. There is no way of ascertaining just how many may have had combat experience but more than likely, it was a minimum. The last war in which there was any significant aerial combat was the Vietnam War and that was roughly twenty years in the past. Further we have no way of determining just what type of aircraft these pilots flew in the military. Surely there were some with combat experience but certainly not the younger ones. In any case, the prior military experience that the majority of CRAF pilots had, served them well. There was indeed a sense of confidence, patriot spirit and camaraderie that goes along with most groups of veterans, and it was no exception among the pilot group. What made the CRAF operation so successful however, was the professionalism of commercial airlines pilots. While their military aviation background

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may have facilitated their integration into the military grid, it was their professionalism – based on their training and experience – that made this operation nearly flawless. In a white paper produced by ALPA entitled “Producing a Professional Airline Pilot” ALPA lists several minimum qualifications a civil airline transport pilot must have. Here are some:

- Ability to configure the aircraft in a timely manner and in accordance with company procedures under a variety of conditions and situations.
- Achieving a stabilized approach by maintaining strict airspeed and vertical path parameters when ATC gives clearance to conduct a visual approach.
- Adapting to last minute changes required by ATC or rapid changes in weather conditions, especially near the airport in high workload situations.
- Demonstrating situational awareness during line flight operations.
- Ability to prioritize and integrate company dispatch requirements and maintenance reporting tasks into the operation of the aircraft with passengers on board.
- Ability to efficiently and effectively communicate and understand.\(^{318}\)

Keeping in mind that these are only the minimum qualifications for a new or beginning airline pilot. The ALPA paper continues by adding an additional qualification for an airline captain; “effective communications, leadership, conflict resolution, and judgment necessary to properly lead a crew, exercise command authority and maintain the highest levels of safety in the face of internal and external pressures.”\(^{319}\) Considering the long distance and the multi segments each CRAF mission included, and the fact that many flights entered into the tightly controlled and very congested air grid during hostile action, makes the CRAF pilot’s flawless safety record even more remarkable. We should not forget the human element when it comes to aviation safety. The ALPA white paper reminds us; “The best and most important feature on any airplane is a well-trained, highly motivated and professional pilot.”\(^{320}\) The acquisition of these attributes best describes the thousands of commercial airline pilots who flew the CRAF. If we had to sum up the characteristics of the pilot group and the reasons for their successes we would begin by saying: that the vast majority of pilots were from the same mold. Former military pilots were certainly more adaptable to fit into a

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\(^{319}\) Producing a Professional Airline Pilot: Candidate Screening, Hiring, Training, and Mentoring, 8.

\(^{320}\) Producing a Professional Airline Pilot: 1.
military environment. The rigorous training and high standards they were held to as military pilots, conditioned them to a more disciplined and professional attitude and behavior. From the commercial sector they received additional training, retraining, and had to remain current with both company requirements and Federal Aviation Administration (FAA) standards. Their experience in flying the latest and the largest aircraft technology had to offer, placed them into a small group of highly trained, skilled and qualified professionals. Their routine bread and butter, so to speak - was to fly the public on scheduled large-body aircraft safely and securely. They did this to all kinds of places around the world, flying through all kinds of weather conditions while dealing with human, geographical, and even the political foibles found among different people and different locations. They racked up an enviable record of safety, reliability, and know-how. The safety of U.S. troops could not have been in better hands. It showed in the results: 321,000 troops carried - no fatalities, and no injuries, no incidents on 5079 flights into the theater of operations.

Flight attendants were by far the largest group of civilians who flew into the war zone and by far the most diverse. They were also those in closest contact with the troops. As for training we find a much larger variation among this group than we do among the pilots. To begin with most lacked any military experience and came from a very wide spectrum of educational backgrounds. Qualifications for flight attendants vary from air carrier to air carrier but the Bureau of Labor Statistics (BLS) tells us that the air carriers prefer college graduates or those with some college, and that the international carriers require proficiencies in at least one to two foreign languages. According to the government publication the air carriers also prefer those with prior training or experience in: “communications, psychology, nursing, travel and tourism, hospitality, and education.” When it comes to FAA mandated training and certification, all flight attendants are held to the same high standards. Their primary responsibility is the safety and security of the passengers. Safety requirements include instructing the passenger in the use of emergency evacuation equipment such as doors and evacuation slides and the use of life rafts and other floatation devices. They are also responsible for securing the cabin during flight. They are trained in administering first aid and how to act and behave in hostage and hijacking situations. Because of U.S.

322 Ibid.
commercial aviation’s outstanding safety record much of this training – thankfully - goes unused. In the rare instances where flight attendants were required to take emergency action, their performance has always reflected their high standard of training, dedication, and professionalism. On the other side of the coin is the human element. Flight attendants are responsible for seeing that the passengers in their care are comfortable, fed and entertained. They also do a lot of reassuring by coming to the aid of those who are insecure or have anxieties about flying. A smile, a reassuring word, or even holding someone’s hand is sufficient for some while others are reassured just by watching flight attendants going about their duties in a professional and reassuring manner. For the American service man and women flying into the Gulf, the flight attendants were the last civilians from the home front that they would see. These were moments filled with anxiety of the unknown. An ominous feeling of not making it through the ordeal that was facing them, occupied the thoughts of both the crew members and the many of the young men and women being dropped off in the desert. Mindful of these feelings, flight attendants often reminded their charges that they would be there to bring them home and in fact, they were. Flight attendants and cockpit crews moved through the aisles making many friends and acquaintances with the young men and women in the armed service. Breaking the tension, showing support, swapping insignias and in some cases phone numbers and addresses, was a common occurrence on the flights over to the desert. When asked the question “what were your impressions of the servicemen you were carrying into battle” during the interviews for this paper; the response was unanimous, and could be paraphrased as “they were all so young.” From the morale or psychological standpoint there was no better person to be with these ‘youngsters” at that time and place than an airline flight attendant. The recognition of a U.S civilian airliner with the U.S flag on its tail or fuselage was reassurance by itself of home and the hometown support that comes with it.

When the call came to activate the CRAF there was no shortage of volunteers. This placed many of the senior flights attendants at the top of the list. The demand was sufficient however to give many of the junior flight attendants an opportunity to fly CRAF missions. The point is that many of those flight attendants who flew the CRAF brought many years of professional experience to the service of the nation. Thus both the pilot and the flight attendant groups were highly trained, well-experienced and skilled in their respective trades, and highly professional in
practice. It was not by chance the Craf was so successful, but by design. From their uniforms, to their training and certification, and to the highly regulated environment that their profession demands, no industry is closer to the military in its routine practice than the airlines. Within the airlines, the pilot and flight attendant groups are the most regimented and disciplined – military like – than all their fellow employees. Perhaps then, it is clearer why, in spite of the lack of Craf specific training or any Craf familiarization program for airline employees, the Craf operation was pulled off without any hitches. It becomes obvious that recognition is due to the dedicated and professional civilian crew members – all volunteers - who operated the Craf aircraft. Just as there was a lack of Craf specific training for airline crews, so there was a lack of adequate acknowledgment for their service.

The National Airlift Policy, the DOD, and MAC all speak to the number of civil aircraft available in a national emergency, but nowhere do they speak of the people who fly and volunteer to man these aircraft. By comparison no dialogue about the military is complete without references to the soldiers, sailors, airmen, and marines who serve. Their individual stories – rightfully so – are documented in books, movies and in the media. They deserve every bit of the recognition and accolades they receive. In the 1990-91 Gulf War the airline employees underpinned the Craf’s success and the Craf’s success was a key to victory, but their accomplishments and achievements remains unknown to the public. They received no extra pay, no combat or hazardous duty pay, no bonuses, and no special recognition by their organizations, the press, or the public. The military was generous with awards and citations but much of it went through the mail, although there were some ceremonial settings. The single most disappointment expressed by those interviewed for this project was the total lack of recognition for the role they played in the war, and their sacrifices and contributions.

**How Many?**

We do not know the exact number of civilians who participated in the Desert Shield/Storm Craf missions. It is very unlikely we will ever know an exact figure. Most of the airlines which participated in the Craf during the war are out of business or have been absorbed by other carriers. Since many crew members flew multiple missions we cannot simply multiply the number of flights by the standard crew factor. In addition, the air carriers often provided extra crew members, plus relief crews on onboard many flights. The variation of different aircraft equipment types requiring varying crew complements also makes a precise computation almost
impossible. Although the precise number of civilian crew members who volunteered and flew CRAF missions is not important, it is important to grasp an approximation because the numbers were significant. So that we can truly appreciate the magnitude and scope of civilian participation we will use several methods to compute an intelligent estimation.

Although figures from different sources vary on the number of CRAF flights flown during Desert Shield/Desert Storm, the variations are slight. Mary Chenoweth who wrote the Rand Corporation’s report on the CRAF put the figure at 5079 flights from August through May when the CRAF was deactivated. Chenoweth does not however break down the cargo from the passenger flights, but by separating the cargo airlines from the passenger airlines we can better derive the number of participating crew members.*

The all-cargo airlines like FedEx, Connie Kalita, and Evergreen etc. flew a total of 2141 cargo flights with a three pilot operating crew and three pilot relief crews on board.** That gives us 12,846 crew cycles onboard those flights. If we assume that the average pilot made 4.3 trips (calculation shown below) it would give us 498 pilots flying the freighters. It’s a little more problematic to ascertain the number of crew members on troop flights. There were 2938 troop or passenger flights. We would have to allocate six pilots for each flight, three operating and three relief crew to fly the return. For flight attendants depending on aircraft type (B-747 DC-10 L-1011) we would need anywhere from 9 - 15 cabin crew. Relief cabin crews usually did not fly because the aircraft returned empty and the cabin crews would be off-duty during the flight back. If we average the cabin crew at 12 to account for the various aircraft types that would make it 35,256 crew cycles for flight attendants. Overall between cargo and passenger flights we would have had 48,102 crew cycles i.e. crew members operating into the theater of operation. If we use the 4.3 average trips per crew member, we would have 11,187 crew members. That number however is more elusive because of the many variables, so another sources had to be found for corroboration. Under the Freedom of Information Act, MAC now AMC Air Mobility Command at Scott AFB provided a list of awards by airlines that were given to those crew members and airline employees who flew at least one time into the theater of operation during Desert Shield/Desert Storm. The Air Mobility Command awarded 11,284 Operation Desert

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* Relying on the number of flights the all-cargo airlines flew is not without its shortcomings. Many passenger airlines such as Pan Am and Northwest flew some all-freighter flights which would not be included in this method of computing.
** The crew numbers are standard and may not reflect actuals.
Shield/Storm Medals.\textsuperscript{323} That number is very close to our estimation (11,187). The memo from headquarters Air mobility command at Scott AFB which provided this information also stated: “The following is a tally of awards submitted by each carrier. With presentation complete, our office is receiving additional names from some carriers and individuals no longer with airlines.”\textsuperscript{324} Obviously the number of those who flew missions into the desert was under reported. At the very least we know now, from the amount of awards presented, that 11, 284 plus crew members and airline employees made at least one trip into the desert. Since there were 48,102 crew cycles these averages to 4.3 trips each. We now have a working number of civilian crew members who participated in this operation, which stands at 11,284 plus. We also have 48,102 crew trip cycles into and out of the desert i.e. the theater of operations. The numbers speak for themselves on the scope of participation. It was significant and certainly unique in warfare. Considering that in WW II the airline employees who worked and flew for the military (MATS) were mostly men. In this case the vast majority were women. The difference reflects the changing nature of civil aviation’s role in support of the military over the years. That role has changed from carrying primarily cargo to one of carrying primarily troops and cargo. This is consistent with the National Airlift Policy which clearly states that the CRAF is responsible for carrying 90 percent of the troops. Considering that these 11,284 plus men and women touched down in the desert before, during, and after the war at least 48.102 times, it is worthwhile focusing on them seeing how no one else had done so. It is equally significant that none of the authoritative sources on the CRAF had anything to say about training the civilian crew members. There was not even a standardized introduction or orientation program available to familiarize many of the crew members on the existence of the CRAF program. It is possible that some of the civil air carriers may have had an in-house program on CRAF, but MAC didn’t require it. MAC believed that it was sufficient for the airlines to fly peacetime contracts flights to become familiar with military operations. This was the extent of the “training” given to the civil crews – flying peacetime missions for the DOD. It is not our place to criticize this obvious failure, considering that the vast majority of crews did not have this experience and that flying into a war zone is not anything like flying during peacetime. What is important is that the 11,284 crew members – without any training - flew the 5079 CRAF missions without incident and were able

\textsuperscript{323} Memorandum on “Information on the CRAF Awards,” Updated 22 Feb. 1995, obtained under the FOIA from AMC at Scott AFB 28 Feb. 2011. 
\textsuperscript{324} Ibid.
to perform so well. It is well worth considering when evaluating those who volunteered to serve. Another consideration to factor into an evaluation of the civilian air crews and the others, who flew these missions, is that there was no special or additional remuneration. There was no special pay, no bonuses, no hazardous duty pay, and no other compensatory incentives. They served within their normal benefit and employee compensation package. Thus there was no monetary inducement to motivate volunteers. It should spur one’s interest as to why these people would volunteer – in such large numbers - for this dangerous job? As a matter of fact, there are two questions that need to be answered in any study of this group: the first is what motivated them? The second is, how did they perform so well without any training or familiarization? We will try and answer these questions and at the same time unveil those who made the CRAF’s first activation an astounding success. As a matter-of-fact most of them will speak for themselves which should make the answers to these question self-evident.

In this chapter we will examine the role played by the civilian members of the CRAF. We will narrow the focus in this chapter to the civilian crew members who flew for one of the major participants: Pan American World Airways (Pan Am). Pan Am flew both troop and freighter aircraft. As noted in the previous chapter, Pan Am carried 12,419 tons of cargo and 51,900 troops – the second most productive air carrier – and flew a total of 371 flights into the theater of operation. The selection was based on two factors: the first was Pan Am’s significant contribution. The second was the availability of sources. Pan Am, although out of business for over twenty years, provided the greatest number of crew members willing to be interviewed for this project. Pan Am also stands out as the airline that has most abundant and available corpus of written sources on its history. Those sources proved valuable in the creation of this dissertation.

Introducing the Individuals

As we move from the general to the specific, we begin with a two published accounts dealing with civilian crews while working the CRAF. The first is from an article in the Pan Am company newspaper, the Clipper. The narrative is based on what took place during a complete CRAF flight cycle from its origin in Frankfurt to its transit in Rome and finally its arrival in Saudi Arabia. The second account is from a book entitled Fasten Your Seat Belts: History and Heroism in the Pan Am Cabin by Valerie Lester. a former Pan Am flight attendant.

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325 Matthews and Holt, So Much, So Many, So far, So Fast, 44.
Since the focus of the newspaper article was on the civilian crew members and the U.S. soldiers on board the flight, this article ideally suits our purposes. It also introduces us to several crew members as they worked as a team during an actual flight. On December 5, 1990, the Director of Pan Am’s Internal Communications, Alan Loflin, who also served as editor for Pan Am’s corporate newspaper the Clipper rode along with the crew on a flight full of U.S. troops into Saudi Arabia. Loflin spoke with the crew members as they performed their duties and he also spoke with the soldiers onboard the flight and reported their feedback for us. His observations and reporting which appeared in an article entitled, “Pan Am Flies in Support of Desert Shield,” spanned four pages complete with photos, names, and a detailed account of what he observed and heard onboard. The full article will appear in the Appendix B. As the article encompassed the two segments of the flight: Frankfurt – Rome, and Rome – Saudi Arabia, it affords us the opportunity to look at two separate crews, both pilots and flight attendants, and their interactions with the troops onboard. It provides us with a bird’s eye view of what goes on in the cabin of the aircraft full of U.S. servicemen on their way into a combat zone. In addition, it creates for us the context in which we can place our separate and independent crew member interviews. Here is their story.

Wally Alvarezayuso, Sandra Gean, et al

The flight was Pan Am’s eighty-sixth into the desert and was designated MAC 6858. It originated from Rhein-Main Air Force Base in Frankfurt, stopped over in Rome and continued to an undisclosed destination in Saudi Arabia. The information Loflin provides will be heavily quoted as an original document and for our purposes will set the stage for our perspective. The flight was Pan Am’s third flight from Germany and was part of the phase II deployment of U.S. troops which included substantial troop movements from Europe, as we previously discussed. Although these flights could have flown non-stop, a stopover was made in Rome in accordance with Pan Am’s requirements for a crew change, refueling, and provisioning of the aircraft. There were 337 U.S troops on board from three different units: the 12th Evacuation Hospital, the 17th Medical Detachment, and 144th Ordinance Company. The troops were all boarded in twenty-

327 Ibid., 1.
five minutes and all carried their weapons (unloaded) onboard the aircraft. Loflin begins his
narrative at that point:

It was then that Purser Wally Alvarezayuso and John Murphy and their team of nine flight attendants
already having set the stage for the evening flight, went to work in an endless choreography of
kindness and concern that has come to characterize the unique nature of Pan Am’s role in MAC
charter operations.\(^{328}\)

Alvarezayuso was one of those senior Pan Amers who had worked flights into Vietnam during
the 1970s. Loflin speaks about what Alvarezayuso learned from the experience:

He knew the atmosphere of uncertainty and fear in the passenger cabin. Some of the soldiers were not yet
twenty years old and were being sent into the middle of an unforgiving desert, preparing to fight a war, yet not
knowing if hostilities would erupt. Some masked their fears better than others, but there was no way to deny
that the atmosphere in the cabin was, at best, somber.\(^ {329}\)

Alvarezayuso decided to show a movie in the cabin right after takeoff and briefed the Captain,
Denny Christenson on what service was prepared. Christenson questioned his purser on the film
since the flight was less than two hours. Alvarezayuso responded, “It times out perfectly…trust
me on this. I’ve been there before.”\(^ {330}\) The movie was a comedy with Robin Williams and
Alvarezayuso said, “It’s important to keep the soldiers occupied and entertained, because it helps
them take their minds off the uncertainty that they know lies ahead of them.”\(^ {331}\) Since it is
important to understand just what these crew members felt and to what extent they were willing
to go, we will add some of the thoughts on the matter that Alvarezayuso related to Loflin:

He says there is far more to the mission of the flight attendants on these flights than scheduling
movies and snack service…we do whatever we can do to show these people that we do care for
them, and let them know that when they get there we will pray for them and their safe return. We do
not leave them in the Saudi desert.\(^ {332}\)

Loflin adds, “Wally, like all pursers and flight attendants work the MAC charters
voluntarily…All cockpit crew members also operate MAC charters voluntarily. Pan Am will not
assign any crew member to a MAC flight without the employee’s concurrence.” Loflin also

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\(^{328}\) Loflin, “Pan Am Flies in Support of Desert Shield,” 2.
\(^{329}\) Ibid.
\(^{330}\) Ibid.
\(^{331}\) Ibid.
\(^{332}\) Ibid.
added that the showing of the movie brought “chuckles and the chuckles became hearty laughter. The somber atmosphere in the cabin was quickly transformed.”

The transit in Rome took less than an hour. During the crew briefing the outgoing purser Wally Alvarezayuso advised the incoming purser Sandra Gean that the commanding officer had declared the movement a non-smoking flight. At the turnover briefing it was decided to approach the commanding officer and politely suggested to him to allow smoking in the last four rows and let the soldiers shift for themselves. The permission was granted and the move proved to relieve some of the tension among the troops. It also allowed some of the troops to become acquainted with each other, as well as meeting other crew members, as they moved about the cabin. At Rome the flight picked up a maintenance supervisor and operations representative who would fly with them into the desert. The operations representative, Harald Hoffman, was based in Frankfurt but along with several others Pan Am staffers, was put up in Rome to work the flights transiting to and from Saudi Arabia. Harald was interviewed for this dissertation and will be discussed later. The new purser Sandra Gean organized the new service for the Rome- Saudi segment and briefed the crew. She planned the service, which included two movies, dinner, and a drink service (no alcohol was served on the Craf flights), in such a way as to “maximize the amount of time the flight attendants would spend in the aisles with the troops.”

Loflin goes on to describe some of the soldiers on board the flight:

Some were teenagers with only basic training and advanced infantry training – ATI – under their belts. Others like Chief Warrant Officer Hugh Cederquist, a 33 year army veteran, had seen combat before. Cederquist has served five tours in Vietnam, more than 51 months as a med-evac helicopter pilot…Cederquist had an infectious sense of humor that helped to put many of his fellow soldiers at ease. He placed a sign above his seat, a pun on his rank as Chief Warrant Officer –”Warrants of Arabia.” Cederquist first two trips to Vietnam were by ship and his last three were on board military air transports.

Fortunately for us, Loflin spent time interviewing some of the non-commissioned officers (NCOs) on board the flight. Continuing with Warrant Officer Cederquist, Loflin had this to say:

I’ve been talking with some of the senior noncoms who also served in Vietnam. He said, “We’ve never seen anything like this before. This flight is absolute heaven.” Heads around him nodded in approval. He spoke at length about the importance of the interaction between the soldiers and the

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334 Ibid.
335 Ibid.
Pan Am flight attendants, echoing from an opposite point of view, the almost identical observation expressed earlier by Purser Wally Alvarezayuso. “It’s especially important that the younger soldiers understand that somebody really does care about them and support what they are doing.” Cederquist said. ‘It’s plenty clear up here that these Pan Am people really do care and it means so much to all of us to know that.”

Less than six feet from where the 33 year old combat veteran stood, a young women sat curled up in the last rows of E-zone, sleeping soundly, an M-16 propped next to her. She was cuddle up with a small green teddy bear, at peace with the world. Her name was Annemarie Degani. She was from the 12th Evac Hospital. She was 20 years old…The mood on the aircraft was very buoyant. But the flight attendants couldn’t stop now. They had been exchanging names and addresses with the troops. “You be sure to write me now,” one soldier said as he handed over a sheet of paper with the address of his unit. “Promise to write back and let me know that you and your friends are okay. And if there’s something you need from home, let me know and I’ll try and send it to you,” came the reply from the flight attendant.

In addition to addresses and phone numbers, rank and unit insignias were swapped for flight attendant wings and company logos. There was a concerted effort on the part of many flight attendants to break the somber mood with levity and humor. Junior Purser Richard Hicks made the following announcement over the aircraft intercom, “We have a choice of entrees for your hot meal this evening…a choice of Coq au Vin or Filet de Poisson. That’s known back home as Chicken or fish. The cabin responded with a roar of laughter.”

When there was a break in the service Pursers Sandra Gean and Richard Hicks talked about why they were there, some 30,000 feet over the Red Sea crossing into the Saudi air space. “There is a somberness that prevails here,” said Richard, “especially as that January 15th deadline draws nearer. We know they are concerned about what will happen tomorrow, or if there will even be a tomorrow for them. But the moments of levity, the laughs we share, are real. We help them feel good about themselves even if they are asking themselves about their personal security, and that’s important.”

“I have a patriot feeling about it,” he said. “I’m not in the military but this way I can support the people who are. They get a more positive outlook on getting started by flying with us instead of on a C-5. That’s basically a flying troop ship. This is a luxury 747 jumbo jet. Flying with us, they feel they are people and to us they are people first. They’re soldiers second.”

Sandra Gean was as practical as Richard was philosophical. “This is once in a lifetime experience for me,” she said, “I’ve heard the more senior flight attendants talking about flying Vietnam trips.

\[337\] Ibid..
This gives me a chance to see first-hand what the United States is involved in over here. For most people, this is what’s happening in the news. We get to see it ourselves and see just how real this thing is. Yes there is some risk involved in these trips. But look at the risks and sacrifices these people are taking for us…These flights are an important part of supporting the American effort in the Persian Gulf.”

Loflin moved to the cockpit to check on the Captain Frank and the other pilots. The captain had just been advised by air traffic control (ATC) that their destination airport was fogged in. He was preparing to inform the crew that they may have to hold till the fog lifted or be diverted to another airport. But hearing over the radio another pilot saying that the fog was limited to the north side of the runway, Captain Frank requested ATC, if he could make an approach out of the south. He got the approval. Once cleared, the aircraft landed and stopped just short of the fog bank. Once on the ground in Saudi Arabia the crew waved goodbye to their former charges and some of the flight attendants were throwing kisses as the troops marched off. In Loflin’s words there “were smiles and there was tears.”

As the crew waited for the aircraft to be refueled and offloaded they made their way to a hangar where they were able to buy some souvenirs and mementoes while some were chatting with some soldiers awaiting transportation. Loflin reports the following conversation between a soldier and flight attendant, (soldier) “You from Florida, so am I! Do you know I’ve been here for three months and the most important thing to me is mail from home? Can you get flight attendants to write us? I saw that Pan Am 747 land this morning and I suddenly felt closer to home than I have in weeks.”

As an experienced reporter Alan Loflin was able to observe and articulate for us just what differentiated the flight attendants’ behavior on a troop flight as opposed to what we know and expect of their behavior on a regular scheduled flight. Aside from the regular obligatory service duties a flight attendant performs on the troop flights, we were able to hear in their own words, how they took it upon themselves to raise the level of service, and to become personally involved with the troops. This higher level of service became standard on most troop flights but it was something not found in the manuals. The troops benefited from it greatly and it also brought a sector of the civilian population – several thousand – closer to the realities of war. None of these

339 Ibid.
340 Ibid.
benefits were ever imagined when the CRAF was created. This is said with confidence since there is absolutely no prior mention of the crews in the post or pre-war CRAF literature other than in a technical and perfunctory manner. Loflin was also able to capture for us – first hand – the sentiments of those closest to the frontline troops, the NCOs and a warrant officer who with the benefit of combat experience stressed the importance of the interaction of the flight attendants and the soldiers on board the aircraft. A keen observer reading Loflin’s account could almost feel the release of tension in the cabin and the comfort the soldiers found in the proximity and interaction with the cabin crew.

**Tania Anderson, Pan Am Purser**

Valerie Lester’s work is a compilation of many interviews with former Pan Am crew members and focuses on major aviation historical events and sundry other aviation tales of interest. The stories range from Pan Am’s involvement in WW II, the accident at Tenerife in March of 1977, the hijacking of the first 747 (Pam Am 93) on Black September (1970) by Palestinians, and flying with the troops during Desert Shield and Desert Storm, which interests us. Lester’s account is based on the recollection of Pan Am flight attendant/purser Tania Anderson. Anderson from McLean Virginia attended boarding school in the UK and has a degree from the American University in Washington in Political Science and International Affairs. After spending several years in the hospitality industry working for several well-known hotels, she decided to apply for a flight attendant’s position with Pan Am. Like so many others like her, she was looking for some adventure and travel. Once in the ranks and flying for several years, Anderson had her eye on being assigned to the White House Press Charters but lacked sufficient seniority. For many years Pan Am had the contract to fly the White House Press Corps wherever and whenever the president was on board Air Force One. Anderson felt imminently suitable for the position because of her degrees in political science and international affairs. The timing however wasn’t right, but with the Iraqi invasion of Kuwait in August of 1990, Ms. Anderson was in the ideal position to use her talents and experience to great advantage. When the opportunity presented itself to volunteer for the CRAF missions, she jumped at it. There were however some preliminary criteria that had to be complied with, and Ms. Anderson was asked the usual questions: “Is there anybody Jewish in your family?” “Is your middle name Jewish?” “Do you have visa stamps from Israel in your passport?” “Have you visited Israel in the past
year. The Saudis would not issue a visa to anyone of Jewish background or to anyone who had an Israeli visa stamped in their passport. We have no knowledge that the Saudis made a point to prohibit Craf crew members who were Jewish from flying into Saudi Arabia. It was a prohibition for scheduled flights into the Saudi Kingdom which Pan Am had flown for many years. But to our knowledge this prohibition did not carry over to Craf flights. We suspect Pan Am may have been extrapolated this prior prohibition to the Craf operation. We did interview one Pan Am flight attendant who was Jewish and was asked the same questions as Tania Anderson, but as we will see, she was allowed to fly into Saudi Arabia nevertheless. On her first assignment, Ms. Anderson and the 747 crew were sent to Bangor Maine to pick up their Craf flight to Rome. She tells how she began her briefings to the other flight attendants:

During the briefings before the flights, I would say to the flight attendants, ‘As far as I am concerned, we have 425 VIP’s on board, with which they would heartily agree. The interaction between the crew and the passengers was wonderful and the atmosphere in the cabin was very cohesive. However it’s strange to get on an airliner that’s loaded with guns. The ammunition clips were in the belly, but you have 425 troops, each with a side arm and an M-16 automatic assault rifle. Some of them had M-60s…when you get on board and you see these grenade launchers you know they mean business.

Tania Anderson’s account as given to Lester was about four years after the one reported in the Clipper newspaper and yet it rings familiar:

On the long flights from Bangor to Rome and from Rome to Dhahran Tania found herself becoming endeared to the troops she was accompanying. As senior purser on board, she made sure that her announcements were as reassuring and as caring as possible, and she and her crew became the recipient of many stories and much admiration…On the final approach into Dhahran, Tania never failed to send the troops off without her promise, “I look forward to the day I get a call from crew scheduling to bring you guys home, and I promise you I’ll be right there. It’s been a wonderful, valuable, and memorable experience meeting all of you, one I’ll never forget.

It was not all about being nice and going the extra mile for the U.S. servicemen and women on board those aircraft, there were real dangers involved in being in a war zone and to flying into an aerial theater of operations. Lester continues with Anderson’s account:

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342 Ibid., 257-8.
343 Anderson, 258-9
We were on the ground there for about two and half hours – no layover because of security…As the 16 January date approached, troops were flown to Riyadh and Al-Jubail, close to the Kuwaiti border…As the deadline for Iraqi withdrawal drew closer and the threat of war became more and more a reality, the flight attendants were given instructions in the use of gas masks. The commanding officer and his assistant would gather the cabin crew in the back galley and demonstrate how to don the masks and how to interpret visual signals…The mask became one of the things we were required to have with us - - like our manual, our cockpit key, and our flashlight.344 Tania was indeed affected by her experience. “Two days after the fighting began she had a nightmare.”345 Here’s how Lester describes it:

On 16 January 1991, Desert Shield became Desert Storm, and the war was quick, lethal, spectacular…I dreamt that I was in the military and the sergeant said, ‘The fight has started. Who is going to watch this town? ’ You could hear the bombs constantly going off in the distance…then all of a sudden, I sat up ramrod straight on my bed, and felt as though someone had poured iced water all through my veins and into my lungs. I could feel it running down through my arms. I attributed the dream to the fact that I had bonded with the troops so readily, and had empathized with all their fears. I believe I was taking on some of what they were feeling… I must have had it [nightmare] because I had spent so much time with the soldiers, listening to their stories, getting a good feeling about who they were. A lot them were from Middle America and had never been in a big city, and all of a sudden they were 10,000 miles from home. They were such young boys; just kids really… You bond with them because they’re your passengers, because they’re fellow human beings, because they sensitive people who tell you their stories and you feel protective of them.346

Indeed Tania Anderson was there at the end of the war, as she promised, to take the troops home. The flight on the redeployment home was typical of the many flights the CRAF flew: The fact that she felt protective of the troops is another sentiments expressed by others as well will see.

On 1 April 1991 Tania kept her promise. She flew to Dhahran to bring out the paratroopers, the members of the 82nd Airborne Division, the ‘All Americans.’ Tania and her crew decorated the cabin with “Welcome Home” signs and yellow ribbons from nose to tail, dressed up in patriot shirts, carried bouquets of yellow flowers and ribbons, encouraged pillow fights, and wished their passengers “Happy Easter” and “Welcome home.” Most of the troops of the 82nd were jubilant about returning because they had been the first to go in to Saudi Arabia…but a few of them were anxious about their re-entry into American society and what they would find back home as several of them had received “Dear John’ letters. One paratrooper asked Tania, “Has there really been a lot of

345 Ibid., 259.
346 Ibid.
support at home?” She recognized from the tone of his question that he had served in Vietnam, and reassured him, “Yes, there are yellow ribbons everywhere, bumper stickers everywhere. People have signs up in their windows. The flags are flying all over the country.” He remarked, his eyes filling with tears, “It was terrible when we came home from Vietnam.”

Even without the benefit of professional expertise, it is quite obvious that there was a beneficial psychological component to the presence of airline flight attendants accompanying the troops to and from the theater of operations. No ordinary layperson could possibly understand the emotional frame of mind of a young soldier going off to an alien land, thousands of miles from home to fight an unknown enemy. Certainly many entertained thoughts of not ever returning and seeing their loved ones again. Instinctively the airline crew members were well aware of those thoughts and made a concerted effort to relate, bond, and open their hearts and minds to what Tania Anderson describes as these “kids.” Judging from the words of the flight attendants and the soldiers themselves, it was successful. That these cabin crews were all volunteers and were aware of the dangers involved, made these efforts all the more significant.

There were four flight additional attendants who agreed to be interviewed or to submit their recollections on flying CRAF mission during Desert Shield/Desert Storm. Three were from Pan Am and one from World Airways. In addition there were four pilots who flew CRAF missions during the Gulf War and agreed to be interviewed for this dissertation. They were all from Pan Am. The interviews were conducted twenty years after the events related took place. We will stick closely and quote precisely the words of the interviewees as their own comments best reflect their state-of-mind, emotional feelings, and their honest assessments what they saw and experienced. There is no better way to introduce them than to listen to them tell their own story.

**Claire Graham, Pan Am Purser**

Claire was born in Ireland in 1943 and because her father was in the Royal Air Force (RAF), she lived and travelled extensively throughout the world. She lived in Egypt, Malta, Rhodesia, New Zealand, Italy, and South Africa. She attended boarding school in England and graduated from the University of Capetown, South Africa. Claire came to the United States in 1964 to work for the British Embassy in Washington and it was there in 1967 that she took a job with Pan Am as a flight attendant. She flew as a flight attendant and purser for total of 41 years – 25 for Pan Am and 16 for Delta. Claire’s education and background ideally suited her for a position as

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purser on the White House Press Charters. She was purser on the Press Charter that followed President Bush on his Thanksgiving Day trip to visit the troops in the Saudi Desert in November 1991. Claire gives us glimpse of what it was like travelling with the White House Press Corps:

We didn’t have [free] time on the Craf charter but on the White House we did. When we landed in Jeddah, we all (the flight attendants) went to the Souk and bought burkas to dress up in. When the press returned to the aircraft …we refused to give them any alcohol on the pretense that it was not permitted in Saudi Arabia! Of course, this didn’t last for long, but we had great fun doing it.348

Claire volunteered to fly Craf missions. When asked what motivated her she replied: “They needed a purser and I wanted to help out.” Claire added: “I would not make any decision based on politics. My company needed me and that was my job.”349 Claire was the purser on Pan Am’s first flight into the desert and at the time the crew volunteer list wasn’t totally compiled, the crew was, in her words, “hastily assembled.” The flight also flew via Egypt rather than Rome. When asked if she was worried about flying into the Gulf Region during the crisis, Claire responded: “My father flew in the R.A.F. and flew nightly bombing mission over Germany – this was nothing in comparison and I was never afraid.”350 But in response to her greatest concern she said; “Maybe, just not knowing what we were flying into.”351 The ‘not knowing’ or unknown factor also caused some anxieties among other crew members. In response to her thoughts and impressions on the troops they were carrying Claire said:

They were very young soldiers – that made an impression on me – going somewhere that they had never been, yet maybe never even heard about. A lot of them had never travelled overseas. We stopped somewhere in Europe to re-fuel and they bought postcards and wrote them to their loved ones and we mailed them when we got back to the U.S….We were all very grateful to them and got to know quite a few of them. They were so young, apart from the officers…I was grateful that I wasn’t one of the soldiers flying into the unknown, and so young, almost still boys…I do remember feeling sad when I saw those young faces of the soldiers going to war. One handed me a postcard to mail when I got back to the US and it said ‘I promise to duck, Mom,’352

Aside from the impression that the troops were ‘so young,’ most crew member felt a real concern for the safety and well-being for the servicemen they were carrying.

348 Graham interview, May 9, 2011.
349 Ibid.
350 Ibid.
351 Ibid.
352 Ibid.
The pilots were just as involved, although somewhat isolated from the troops. As we’ll see many went out of their way to get personally involved way beyond their normal responsibilities. As the vast majority were military veterans, they displayed a special empathy for the troops under their care and it shows in their words.

**Sherman (Sherm) Carr, Pan Am 747 Captain**

Sherm, as he’s familiarly called was a former Naval Aviator. He graduated first in his class at the Naval Flight Academy in Pensacola and got his choice of assignments. He chose Hawaii where he was assigned to fly Navy brass. After he got out of the Navy, like many former naval aviators before him, Sherm was hired on by Pan Am. During his long career with Pan Am he volunteered to fly flights into Vietnam during the war. He recalls that they often took small arms fire as witnessed by the many bullet holes found in the fuselages of the aircraft. Sherm described how, in order to avoid hostile fire, the aircraft would fly directly over the airport and make a spiraling descent down to the runway rather than a long approach to minimize exposing themselves to enemy fire. With his military experience, Sherm volunteered to fly several flights that Pan Am was asked take on in the service to the nation. Many of those missions remain classified till this day. When the CRAF was activated for Desert Shield in August of 1991, Sherm did not hesitate to Volunteer. He readily shared some of his most memorable experiences for us. Here Sherm describes events that took place on a flight returning home – redeployment. The captain and his crew picked up the troops in Rome for the Rome - New York (JFK) leg.\footnote{Interview Sherman Carr, March 1, 2011.}

The majority of our passengers were the 3rd Battalion, 7th Marines of the 1st Marine Division. The most significant thing to me was that just a few weeks earlier, the majority of these men did not know if they were going to live through the next day...In our preflight briefing aboard the aircraft, the cockpit crew and the cabin staff all voiced their commitment to make sure these heroes had a wonderful flight and knew how glad, we at Pan Am were, to be able to take them home. Even before we took off the flight attendants were trading their Pan Am insignias and other Pan Am memorabilia for those of as many Marines as they could until they had nothing left to trade. In my preflight announcement, I invited them all, in turn to the cockpit during the approximately 10 hour flight with the proviso that they leave their weapons at their seats. (They were all still armed and responsible for their weapons.) I also announced that we had taken on a full load of MRE’s (meals, ready to eat, their standard field rations), so they would not suffer from a sudden change of diet. I could hear the groans all the way up on the flight deck and quickly reassured them I was only kidding and we had...
some real great real food that we hoped they would enjoy. I heard the cheers…I did have a chance to tour the cabin and observe the rapport that our cabin staff had developed. It was like a big party with everyone very well behaved and appreciative of the extra attention our flight attendants were able to give them.

Up to this point what Captain Carr has described for us was not out of the ordinary for what took place on board most CRAF flights. On the flights into the desert there was a somber mood on board the aircraft, and the crews did all they could to lighten up the gloomy atmosphere, show as much support and concern as possible, and to reassure the troops that they would be there to take them home. While on the redeployment flights the mood was more festive. The crews still reassured the troops of their continued support and that of the folks back home; and conducted themselves pretty much as the captain described. There was however something else that took place on this particular flight that made it truly an exception, a one of a kind event that surely would not, and could not happened again. It could only be described by someone who was there.

Captain Carr picks up in his own words this most memorable event:

I made an announcement when we crossed into U.S. airspace just north of Maine with a big “Welcome Home to the United States.” As big as a 747 is, it still vibrated with the cheers. As we got close to JFK airport, Air Traffic Control said: “we understand you have some returning troops aboard.” I answered: “Yes we do.” ATC then said: “Would you like to take a tour of the City?” I, of course answered: “You bet we would.” I was a bit shocked. New York ATC is one of the busiest in the world and not known for being overly friendly on the radio and to my knowledge, they had not allowed anything like that since WW II when an airplane hit the Empire State Building. We took them up on their offer and dropped down to 1000 feet, flew up the East River, came around La Guardia Airport and turned down the Hudson. There, ahead of us was the Statue of Liberty. It was a beautiful windless day so the water was like a mirror and we actually saw two of her. . I asked JFK approach control if I could take a turn around the Statue of Liberty. They said: “Sure.” I dropped down to 500 feet over the water and made a pylon turn around Ms. Liberty and our airplane was again shaking with cheers from these men and boys who lived without knowing if they would ever make it home again. The hairs on my arms and neck were standing up and tingling with thoughts of what this symbol really meant. When they asked me what runway we wanted, I had to clear my throat to be able to answer. We asked and landed straight ahead on runway 13 Right and taxied to the terminal.

The surprises weren’t over. This was just a fuel stop for our guys but I told them they could get off to call home if they wished. I had the paperwork so I had to precede them up the ramp to the terminal. When we reached the terminal, I was stunned; it seemed that every baggage handler, ticket...
agent, taxi driver, Port Authority Cop and anyone else at JFK that day had heard of our arrival of the first troops back from Iraq. The desire to greet some real heroes after the agony of Vietnam was enormous and these young men were treated to a mini ticker tape parade right there in the Pan Am Terminal. Being part of this is one of the most treasured moments of my 53 year aviation career.\footnote{Sherman Carr interview}

Captain Carr, “Sherm” describes for us in his own words just how the pilots made the extra efforts on behalf of the troops, but he also describes how the pilots were emotionally moved by the events and the part they played in it. What is also significant was his mention of Vietnam, “the agony of Vietnam” as he descried it, and this is consistent with Tania Anderson’s quote of a Vietnam veteran who said: “It was terrible when we came home from Vietnam.” The contrast wasn’t lost on the military and it certainly was not lost on those working for the airlines. Twenty years after the event, Captain Carr still remembers this experience as one of his ‘most treasured moments’ is his long career in aviation.

Pan Am flight attendant Denise Fogel brings an interesting perspective to her interview. Denise was a new flight attendant, Jewish, and keenly observant. She is the first flight attendant who was not a purser to be interviewed. In this way we get a view from the bottom i.e. someone not in a position of authority.

**Denise Fogel, Pan Am Flight Attendant**

Denise has a BA in History with a minor in International Affairs from the University of Minnesota and “spent time studying and working abroad mostly in England, France, and Guam.”\footnote{Denise Fogel Interview, June 2, 2011.} Her first job after college was with Pan Am and when Pan Am went out of business in 1991 Denise moved on to Delta. She continued to fly for several years until she gave up flying and focused on selling telecommunications equipment and taught at a religious school. At the time of the interview Denise was President of the executive board of her synagogue’s sisterhood and on the advisory board of the local Jewish educators’ professional development conglomeration.\footnote{Ibid.}

Denise volunteered to fly CRAF missions but since she was Jewish she was not allowed to fly into Saudi Arabia. When Christmas Eve rolled around there was a shortage of volunteer flight attendants who wanted to fly that day. Crew scheduling was trying to put a crew together and
gave Denise a call and was asked if she were available. She accepted the assignment without hesitation and the rest is history. Here is how Denise explains what took place:

When the CRAF flights first started in August, I wasn’t allowed to go because I was Jewish, and the head of scheduling knew that so he wouldn’t put me on a crew. Layovers were in Egypt at the time and it was just too risky. When he finally cracked on Christmas Eve because of a lack of volunteers for that night’s flight, I was on the plane within a couple of hours, loaded up with young boys about to go to war. I was much more concerned with what they had to face than what might happen to me in the time it took to refuel our plane and get back out of there. I wasn’t staying. They were.357

Denise confirms for us that she was aware of the dangers involved in flying into the Persian Gulf but felt safe at all time. She does however recall, like Claire Graham, an apprehension about the unknown:

I sometimes thought briefly about what may happen when we were on the final descent into the desert field, but I didn’t have the feeling that anything was going to happen that we couldn’t handle. My biggest anxiety when bringing troops in was looking at how young they were and thinking of my baby brother back home (about 20 at the time) and feeling protective of their safety and well-being. I just wanted them all to be able to return to their lives and their families after they left that place.358

As for the type of training or preparation she received, Denise is clear on the lack of any formal training. Here is how she puts it:

Nearly everything we needed to know was taught on the job, from an extra couple of minutes on the phone with crew scheduling to a few moments at briefing when the Captain came to meet with us. I vaguely remember how to put on gas masks and being briefed about specific situations by the flight crew before takeoff or during flight…We also learned very quickly how to step over weapons in the aisles…I remember one captain telling us if anything goes awry to jump into the closest seat and fasten your seat belt because he would have us up in the air and out of there stat [sic]359

When asked what her impressions where of the servicemen she was flying she had this to say:

They were very young for the most part and very kind and appreciative of anything we did for them. Going into Saudi so many of the really young boys were understandably more apprehensive the closer we got to the desert. They just wanted to talk all night long and we were a captive audience for them. It’s a long flight and there was a lot of chatter. The servicemen were fond of talking about previous missions, their divisions, their lives back home, anything to keep their minds off the fact

357 Fogel, Interview.
358 Ibid.
359 Ibid.
that they were landing in the middle of the desert to defend our country because that reality would be there as soon as the plane landed on the runway. They were brave and kind people.\footnote{360}{Fogel Interview.}

In addition to the chatter and being a ‘captive audience’ for the troops, Denise was asked what else went on in the cabin – Did you extend yourself in any way for these people? Here is her response:

> I think we did. We often exchanged pins and patches and other memorabilia, took many photos and made sure everyone who was going to protect our country got royal Pan Am customer service. We sometimes slipped people pillows and blankets to take with them or left over soda or food. Occasionally we received an MRE or military blanket in return…I still have a collection of trinkets from those days two decades later and even used a few patches for a costume recently. I have dog tags and Saudi cigarettes, patches from different divisions; pins from a variety of ranks, and a hat, a blanket, and a lifetime of memories.\footnote{361}{Ibid.}

We have previously discussed how the CRAFT crew members, in this case the flight attendants were also positively affected by this experience. In answer to the question: What did you learn or take from this experience, Denise had to say:

> The fortitude of the people that filled plane after plane who were willing to give up their lives so we could go back to our homes in America and live our lives was awe inspiring. It gave me a new found appreciation for the rights we have and the way we are able to live in this country, even more so than much of the previous travel I have done…There is something very powerful about seeing people off under the cover of darkness into a true unknown and having the knowledge that they are there for me, my family, my friends, and community and our country as a whole. They represent all of Americans – it was quite humbling.\footnote{362}{Ibid.}

Denise, so far, has drawn for us a pretty complete picture of the interaction between the civilian crew members and the troops they were carrying. The concern, the interaction and appreciation that flowed both ways is quite obvious. You can tell from her words how much she was affected by this experience. Her appreciation for the way of life Americans enjoy came home to her in a big way. She had also highlighted for us the lack of any real preparation or specific training that was provided by MAC or the airlines. That they performed so well is a tribute to the professionalism, dedication and training of commercial airline crew members, and to the high standards to which they are held. Denise has two more observations for us; one

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\begin{footnotes}
\footnotetext{360}{Fogel Interview.}
\footnotetext{361}{Ibid.}
\footnotetext{362}{Ibid.}
\end{footnotes}

personal and the other regarding the joy and festivities at a redeployment flight. Here is her personal account:

Another time I dropped off troops at their base in Nuremberg and there was a red carpet leading the troops off the plane to a welcome reception with a four star general and other decorated officers and a band playing. It was quite something, especially when you think about the significance of being in Nuremberg and what went on there after WW II. It was very special for me.

[her most memorable experience on redeployment] Hands down getting off the plane near a hangar full of family and friends of the troops on board and watching all the reunions taking place. Absolutely amazing! Daddies meeting their babies for the first time, couples reunited, kids of all sizes smiling and running to see their parents, so much laughter and just as many tears and hugs and music and food and joy. It was truly a gift to be able to share that time with the people who put their lives on the line for our freedoms.  

Denise added a few personal comments which we believe are germane to our stated goal of introducing the crew members as individuals, and to make known their feelings and thoughts. What she tells us clearly demonstrate that many airline crew members went way above and beyond what their normal duty hours required of them. Their contributions, concern and interaction with the troops was much more than the government could have hope for or even imagined, especially in terms of troop morale. Here are her parting comments:

I would like to add that I felt very privileged to be able to participate in the war effort in this way. It was really quite special to be part of the largest rapid deployment of troops in US history, and to know that along with the crews I worked with, we all helped to make a difference…Many of the flight attendants made friends with a number of the soldiers. One of my roommates was on the very first flight over in August and when Thanksgiving rolled around; we took a photo of us with our turkey and mailed it to several soldiers who were already deployed. On one of the trips I was on, I met a soldier that knew a roommate of mine and he decorated a shirt for me to bring to her. It felt like we were surrogate family members to the troops.

Ken McAdams, Pan Am 747 Captain

Captain Ken McAdams, a Yale alumnus,- a “Yalie” – joined the Marine Corps after graduation. He flew A4D- Skyhawk attack aircraft for five years on active duty and for another seven years as a reservist. While on active duty he was attached to VMA 214, the Black Sheep Squadron made famous by Pappy Boyington, Medal of Honor recipient and ace marine fighter pilot of

\[363\] Fogel, Interview.
\[364\] Ibid.
WW II fame. Ken flew off of several aircraft carriers in the Pacific during the Vietnam war but
never saw action. During his tenure with Pan Am Ken became the youngest Chief-Pilot, and later
Vice President of Pan Am’s business jet division. After Pan Am went under, he flew for Korean
Airlines, served as an investigator for the National Transportation Safety Board (NTSB) and was
Chief Operating Officer of KIWI International Airlines. Ken is retired, writes books and spends
half the year in St. Felix Lauragais, (near Toulouse) France with his wife, Bing.

Ken was one of the first pilot volunteers and flew Pan Am’s first flight into the desert. He was
also tasked with setting up arrangements for Pan Am’s aircraft transiting Cairo. He explains it
this way:

My involvement, as best I recall, was concurrent with the press reports so there wasn’t a lot of
rumination time before I got the phone call to come to the VP’s office. [VP Flight Operations] I
think it was on a Sunday. And further, I had been a U.S. Marine, always ready… I was part of the
team to set up Cairo operations, i.e. fueling, maintenance, communications, personnel, briefing, etc.
Our flights generally would come down from Rome for transit at Cairo. Later we shut down that part
of the program and went directly from Rome.365

Ken confirms that there was no special training or preparations for the CRAFT crews: “our
training, beyond our normal aircraft procedural training, was on-the-job…In our basic training
packages, as I recall, we had some introduction to the CRAFT program with the differences in the
aircraft and such. Since I was one of the two first Pan Am pilots on the scene we were the ones to
offer pre-op briefings drawn on our own experience.”366 Ken also acknowledged that: “we did
not receive any additional compensation that I can recall”367 Ken had the same emotional
feelings that were expressed by other crew members – concern for well-being of the servicemen
they were carrying: “Oddly enough, I felt, I and my crew were protecting our Marines: ‘They
were onboard our planes where they were not positioned to fight. In that odd twist, the situation
was reversed.”368 As to what Ken felt was his most memorable experience during that operation,
he had this to say:

We had one Scud missile shot at us or I should say in our direction, after landing at a remote airport
near the Kuwaiti border. Taxing a huge aircraft full of Marines gave me few options. I elected to
stop, set the parking brake, advising flight service we might have to evacuate the aircraft should the

365 Ken McAdams Interview, March 28, 2011
366 Ibid.
367 Ibid.
368 Ibid. 
thing hit us or close to us. If I continued to taxi, evacuation would have been complicated by being in motion. The Scuds were purely ballistic, so where they went was only a matter of luck…I was aware of the dangers involved. I knew I would be flying an unarmed 747 aircraft full of Marines and equipment into a war zone…My most memorable recollections were watching that Scud wobbling though the air in our direction, and the incredible heat we had to deal with on the ground. Though the cabin was adequately air-conditioned, the cockpits were not. The outside temperatures went as high as 120 degrees Fahrenheit, and with all the glass over us, it must have been higher in the cockpits. We generally wrapped towels around our heads and had flight service team periodically pour ice water on them. With my turban like configuration, I became known as “Kenny Mohammad… I was most impressed by how resilient people can be with when faced with situations beyond their control, doing the best they can…We operated for months, crews rotating in and out, coping with ground temperatures 120-130+ degrees while we waited hours for aircraft service and military loading. Our Marines were terrific, and the conflict short.

Ken leaves us with some last thoughts: “The men I flew with into “harm’s way” were exceptional. Our crew stood at the door of each aircraft and shook every one of their hands, promising them we would be back for them when it was all over. And we were…Of course we made a difference, without our aircraft and committed crews, the job would not have gotten done so rapidly.”

**Beverly McKay, Pan Am Flight Attendant**

Beverly started flying with National Airlines in 1968. From National she went to Pan Am in 1980 when Pan Am bought out National. After 44 years Beverley is still flying today for Delta Air Lines and is based in Atlanta. Beverley only got to fly one CRAF mission on the redeployment and missed an opportunity to fly another, when one crew member backed out. Indeed not every crew member volunteered. Although there was an overwhelming response on the part of crew members to the call for volunteers, several held back for one reason or another. In the case Beverly describes, it was a last minute decision not to go. The story, in Beverly’s words, is well worth including because it demonstrates for us the state of mind of some of the crew members during this time and in fact highlights one individual’s concern about flying into the Persian Gulf. Beverly also reinforces several of the points we have been trying to make.

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369 McAdams, Interview.
370 Ibid.
particularly about the rapport that became commonplace between the troops and the crew members on board CRAF flights. Here’s Beverly’s account:

We flew to Rome and were then to fly to Riyadh to pick up our troops but one of the flight attendants refused to go to Kuwait [sic] since she felt she’d be in harm’s way thus our entire crew was prevented from going further than Rome, since all involved had to be willing to go. The rest of us were very disappointed and frankly furious about her decision that changed our schedule to prevent us from going all the way to Saudi Arabia but [we] met the continuation of the return [flight] in Rome. We all bought crepe paper streamers, flags, etc. to decorate the interior of the 747 and did so with pride and enthusiasm the evening we arrived. Believe it or not, they switched equipment to another 747 so our decorating was for naught since that particular airplane was used on another regularly scheduled flight…Our Captain had shipped 35 cases of beer in the belly to be able to treat each soldier to a beer, but the Colonel in charge refused his offer, much to the disappointment of the captain – and the soldiers – who’d gone to such lengths to give them his surprise. One of our flight attendants became renowned for putting together a welcome video presentation on the homecoming CRAF flights that include many celebrities, songs, and messages. It was very moving presentation that lasted about 45 minutes or more as I recall…Many of the soldiers came into the galleys to talk to us and every one of them wanted nothing more than for the captain to announce when we were over US air space. About 10 or more guys were in the big 747 aft galley talking to us when the Captain came on the PA to announce that we had [entered U.S. airspace] when all of a sudden tears started flowing down the faces of the majority of the soldiers and us flight attendants either in the galley or quietly sitting in their seats or gave each other high-fives or meaningful looks to buddies who’d been thru so much during their deployment. There wasn’t a dry eye in the house! I was talking to a sergeant when the announcement was made. He hugged me with great strength and asked if he could exchange his red airborne beret and his airborne wings for my wings. In seconds that was accomplished. I asked for his address and about a week after the flight I wrote him, sending him and his family some gifts to celebrate his safe return home. He wrote me a wonderful letter of thanks a week or two later. I have his beret and the wings in my Pan Am memorabilia bin and cherish them as a reminder of being a part of that incredible CRAF experience…I wish I could remember who the crew members were who were caught in a SCUD attack as they were deplaning in Riyadh. . . Kuwait? I was in the crew lounge when they returned to Miami from their deadhead flight back still covered in soot 2 days later from having to instantly don their gas masks that each had been issued in case of emergency! Management personnel were in the lounge waiting for their arrival to be debriefed and hear their tales of the incident.371

371 Beverly McKay, Interview, Feb. 23, 2011
John Marshall, Pan Am 747 Captain

John Marshall is both a keen observer and a prolific and articulate writer, and as such, gives us an in-depth and detailed account of what it was like flying troops and cargo into the war zone during the Gulf War. His commentaries support and reinforce many of the points and highlights we have been advancing in this dissertation, and corroborate much of what the other crew members have been saying. The material on Captain Marshall’s experiences flying CRAF missions is taken from both a face-to-face interview, and from a story he wrote as part of an anthology on Pan Am entitled: Pan American World Airways: Aviation History through the Words of its People. Captain Marshall, as an experienced and highly trained aviation professional, speaks with an authority that buttresses his account making it more creditable and convincing. Since he made over two dozen trips into the Gulf his insights and comments are a valuable addition to our research and will be quote at length.

John was commissioned an officer and pilot in the United States Air Force in 1956, and served his country until 1963. During his tour of duty John served as an instructor on the B-25s and later as a combat crew member on the B-52s. In 1964 he joined Pan Am and remained with the company until it went out of business in 1991. With Pan Am, John began as a flight engineer on the DC-6s and 727s. Later he flew on Pan Am’s inter-German Service out of Berlin during the Cold War. John moved on to captain on the 707, L-1011, and eventually the 747. During Desert Shield/Desert Storm John flew over 24 missions in and out of the desert. After Pan Am’s demise he flew charter flights into Saudi Arabia during the Haj between Jakarta and Jeddah. John retired as a 747 captain with Korean Airlines. At the time of the interview, John was working as an Aviation Safety Inspector for the FAA at the airport in St. Louis.

In answer to the question as to whether civilian crew members received any compensation for flying CRAF missions into a war zone, John’s response articulated what other crews members missed but certainly agreed with. Here is what he said: “No monetary compensation. There was the extreme satisfaction of doing a valuable necessary job. There was priceless satisfaction when we brought the troops home and saw the wonderful greetings they received when we landed.” In response to the question on prior training or special preparation to fly CRAF missions, John was in sync with the others: “None, other than the military briefings we

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372 John Marshall Interview, St. Louis: April 16, 2011
received before every departure.”373 John’s impressions of the troops he flew, like the other crew members emphasized their youth but added a deeper and more profound description: “Young, fit, incredibly well trained, very disciplined, eager to go and get the job done. Polite to a fault. Great young kids, the heart of America. Confident without being cocky.”374 John continues with some important observations and background information on that period:

The months from January to June were a heady time for the 747 crews who were fortunate enough to fly Craf missions. The missions ranged from carrying troops and materiel from stateside military bases all over the country across the Atlantic to the war zone, and then a few short months later, astounded by the lightening pace and unexpected success of the war effort, we brought them all back. I was lucky enough to be on both side of the equation…The eastbound trips early in the conflict were sober, reflective journeys. The troops were silent and withdrawn, with the introspection of soldiers on the eve of battle. Most flights stopped at Kennedy before the eight hour trans-Atlantic trip to Rome Fiumicino where the operation was gas and go…Few of the Pan Am captains of my seniority flew in combat – we had been military airmen but most of us fell into the gap between Korea and Vietnam. This was a wonderful opportunity to feel as though we were really on the front line of the whole operation, making a significant contribution to the war effort. We were all volunteers, but no one made a big deal out of it. It was common knowledge that we were flying military operations into a war zone; as I remember, there was a directive from the Chief-Pilot’s office to the effect that no one had to fly these missions who, for whatever reason, didn’t want to participate, no questions asked. I don’t ever recall of ever hearing of anyone refusing…I flew many flights all over the world in my Pan Am career, but nothing matched the exhilaration, the delight, and the satisfaction that came from bringing those troops home…We flew those trips with an open house in the cockpit, which made the crossing immeasurably shorter by the constant stream of men and women in and out, with the happy uninhibited chatter of those who survived…One group told me with great relish of an incident that happened to them late in the conflict. They were hurrying down a goat track of a road in southern Iraq when their Humvee got firmly stuck in the soft drifting sand. The GI’s disembarked with their shovels and entrenching tools and began digging out. Just at that moment a large group of Iraqi troops appeared over the hill, rifles in hand. The GI’s hurriedly hunkered down behind their rooted vehicle, when it soon became apparent the Iraqis wanted nothing more than to surrender. The GI’s huddled for a brief moment, then told the Iraqi leader they would accept their surrender only on the condition they help get the Humvee out of the sand. No sooner

373 John Marshall Interview.
374 Ibid.

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said than done. In the cockpit there were chuckles all around as we all laughed at the absurdity of it.
I was very happy to be a small part of it all.375

Here, for the second time, we hear about the open cockpit where the troops we invited to meet the pilots and see the view from the front (Re: Captain Sherman Carr’s account). Stories were swapped as the crews continued to extend themselves above and beyond what was required of them. John continues to demonstrate his understanding of his responsibilities and those of the civil air carriers that made up the CRAF and gives us the impressions of a crew member as he observes the operation unfolding before his eyes:

Hundreds and hundreds of troops, with all their ancillary equipment, had to be moved, flown across the Atlantic, the European continent, the Mediterranean, and into Saudi Arabia to meet the threat. Tanks, and trucks, Humvees, and ordinary jeeps were loaded to make the long flight. And the troops! Entire divisions of fighting men and women, loaded in toto, like boarding a football team, no, many football teams, as well as the whole student body for an important away game. Only this time the opposition wasn’t likely to beat you with just a forward pass into the inadequate coverage.
The losing team would be carried out in body bags…The airlift was a massive one. Flights originated at any number of bases all across the US…Operation personnel from all over me.376

We previously heard how crew members had a certain anxiety about the unknown. Flying into the unknown and at the very least the unfamiliar posed serious challenges. When you add the possibility of hostile action to the equation it is only natural that some apprehensions should arise. But there was another uncertainty the pilots had to contend with and that was the possibility of “friendly fire.” Again this familiar theme of the unknown is taken up by Captain Marshall:

My first trip from Rome to Saudi was an eye opener. We had picked up a load of infantry the day before in New York and carried it across the Atlantic; at Rome another crew was waiting to carry the troops further on. We would rest for the minimum time in the Eternal City and then pick up the next batch, whatever it might be. The next afternoon we appeared at Fiumicino [Rome Airport]. Our airplane was a freighter, one of five converted from its normal passenger carrying role and pressed into the war effort. We would bring our silent, compliant cargo to a base carved out of the sand in the Middle of Saudi Arabia with the inspiring, and colorful name of King Khalid Military City…but lets’ go back to Fiumicino for a moment. This was our first trip east of Rome, so we would have to be briefed in. We were met at our aircraft by an Air Force major, carrying a briefing

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book nearly two inches thick. It was our first real indication that this was not just another ordinary trip. After determining that this was our first venture into the war zone, out came the book and we settled down into a lengthy briefing. First came pages of radio frequencies and discipline. There were HF [high frequency] bands for contact with some ethereal entity somewhere across the Atlantic. Periodic position reports were essential, we were told. The entire war effort might founder on the shoals of our efforts at communication…(I flew over two dozen missions from Rome to the war zone, and my crew made endless attempts to make contact with our “essential contact” on HF radio. Not once were we successful.)

Our route from Rome flew straight south, along the spine of the Italian boot into the eastern Mediterranean Sea to the Egyptian coast; then down along the Nile river to a point where we turned directly east across the Red Sea into Saudi Arabia. The airway as a well-travelled one, even in normal times; today I was struck by the endless procession of military traffic going in the other direction. Every few minutes, at altitudes above and below, we passed C-141s, C-5s, C-130s, plus others that remained nameless and unidentified. The occasional 747, like us a part of the Craf fleet, hurried northward for another load…The major had spoken darkly of our naval force loitering in the Red Sea. It was imperative that we call “Feet wet” when we coasted out from Egypt and “Feet dry” when we reached the opposite shore. Otherwise he could not guarantee the safety of our flight…In my mind’s eye I pictured our naval forces, each ship bristling with radar, the antennae in our directions as we passed overhead. Khaki clad officers on a flying bridge, binoculars searching the afternoon sky for our hurrying 747. Our calls were unrequited, there was never an answer.377

The unknown, and the unanticipated were about to come together. This is the point where the captain bears full responsibility for critical choices; and where his experience, training, and professionalism – as discussed above – come into play. Captain Marshall continues:

Airways [designated air routes] in the Saudi Kingdom changed daily; each was annotated on our flight plan, and these we took seriously. Deviation from the day’s routes was to be done at our peril. Our first flight into King Khalid Military City (KKMC) was to provide an interesting case in point. It was late into the November afternoon. Dusk descended abruptly, and as we made our way eastward to the point where the airway forked, I could see on the radar that a massive thunderstorm was parked precisely over the airway junction, the point where we were to turn north. In spite of our best efforts, communications were fragmented and broken. The Saudi controller that had handled us from the border had long since faded out without giving us an onward frequency. With increasing trepidation I watched the echo on the radar grow larger, unmoving. I frantically searched though the frequency data looking for a valid number, twirling the radio dial with increasing urgency. We would have to turn soon. At last a voice came booming into the headset, strong and clear. I

377 Marshall Interview.
announced our position and the fact that we would have to depart from the airway to avoid the weather, his reply was casual and laconic, “Roger Clipper cleared to deviate as necessary…” We turned north into another line of storm, this one truncated and uneven. Frequent lightning flashes lit the way, outlining the individual cells against the brown of the far horizon. Another half hour of light remained. I prayed that the light would remain until we found the airbase; word was that the runway was difficult enough to see in the best of conditions. Our unseen controller turned us over the King Khalid Approach Control, who cleared us direct to the base, and for a visual approach to the single runway; surprisingly there was no other traffic. In the gathering gloom I turned the 747 over to the first officer while I quickly perused the chart. We began a rapid descent and all three pairs of eyes peered anxiously ahead, looking for lights, a runway…anything. As we descended the air became browner and browner, until we were flying into an airborne sandbox. Lightning flashes on the horizon punctuated the twilight; the lower we got the darker it became. Still nothing below, no features, no lights, no nothing. The ILS [Instrument landing System] was off the air, the only electronic angel was the lone non-directional beacon off the end of the runway that was the outer marker. I headed for that and leveled the lumbering transport at initial approach altitude. I would take it down to five-hundred feet above the ground level and pray. Slowing now, I put out the gear and the final flaps and hoped for the best. A minute and a half past the marker, and if we failed to make ground contact we would miss and then consider other option. Winds now 35 knots on the surface, thankfully almost straight down the runway. Nothing but brown, deep almost palpable brown everywhere. Then suddenly ahead was a black slash cut into the sand like a child’s crayon slashing a random mark against the desert. While lights ran ahead down the edges, disappearing into the far end. We all shouted ahead at once. “There! Ahead, straight ahead skipper!” “Runway! There!” Eyes flickering from the radar altimeter to the airspeed to the vertical speed, heart pounding, landing lights on, then quickly off as they reflected back at us as though from a brick wall. I centered the airplane between the lights, pulled off the power, and then gratefully felt the kiss of the tires on the concrete. The whipping whoosh of the auto speedbrakes deploying confirmed that we were indeed on the ground. We rolled gently to the end and turned off onto the taxiway, greeted by a jeep with a flashing “Follow Me” sign on the roof. The three of us slowly exhaled and grinned at each other. Welcome to Saudi Arabia!\(^{378}\)

There were some other civilian airline employees who also volunteered to fly CRAFT missions. Although they didn’t routinely interact with the troops, they provided a service that was essential to a well-run operation. There were only an handful of these individuals, but their story is presented here in an interview with one of them.

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\(^{378}\) John Marshall, Interview and Supplement Paper 2 - 4
Harald Hoffman, Pan Am Operations Representative, Frankfurt,

Harald Hoffman was one of a group of 12-15 Pan Am operation representatives (Ops Reps) who were assigned to travel with each CRAF flight into the Persian Gulf. This team of Pan Amers was rotated in and out of Rome and came from various stations within Pan Am’s system. The majority was from the United States but several were from Pan Am’s hub in Frankfurt, Germany. Frankfurt was the coordination center within Pan Am for all of the Ops Reps assigned to CRAF, and also for the maintenance staff (mechanics) who also travelled on board each flight. It was Harald Hoffman who was mentioned by Alan Loflin in his article in the Clipper, Pan Am’s company newspaper that led off this section. Harald was on board the flight that was featured in the article. Before joining Pan Am he had been an Air Traffic Controller in the German Air Force. Herald made numerous flights into the desert during the war and was awarded Air Medal by the United States Air Force. The Ops Reps rode in the cabin along with the troops and were witness to many of the happening reported in this dissertation. He remembers well talking and interacting with the U. S. troops he met, and was impressed by their professionalism and motivation. Like the crew members Harald agreed that the troops were “very young servicemen and women and very proud of their Country.” Harald as well as the other operations representatives were responsible for the on/off loading of the aircraft, seeing that the aircraft was fueled and its flight plan filed with the local Air Traffic Controllers. In a nutshell, the Ops Reps were responsible for the aircraft once it was on the ground and saw to it that the aircraft and crew were prepared for departure. Once the doors of the aircraft were closed and the stairs pulled, the captain assumed command. Unlike the cabin crews the operation reps interacted with the locals on the ground. Harald tells about a relationship he developed with some of the local airport service staff. Here are Harald’s own words:

I always like to remember our relations to the civilian truck drivers operating around our aircraft. Besides the challenge to avoid ground damage maneuvering around our aircraft, we always were invited for a cup of tea, which was prepared aside their trucks on a gas cooker (a safe distance from the aircraft) and dealing with them for Kaftans and other items.

Arriving at an ‘offline-line’ station presents a mixed bag for an airline. During CRAF missions, many of the destinations were ground handled by the U.S. Air Forces. There were however

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379 Herald Hoffman Interview, October 3, 2011
380 Ibid.
several locations such as the civil airport in Dhahran, and the one in Bahrain where the CRAFT aircraft were serviced by local civilians. This always presented a challenge including a security one – at the time, and the ever present possibility of ground damage from all of the moving equipment servicing an aircraft. How well you were treated and the quality of service you received, in many cases, depended on the experience and personality of the operations representative. It was people like Harald Hoffman who made a difference. Captain John Marshall made reference to them in his interview when he said:

Operation personnel from all over Pan Am’s system were stationed in Rome for the duration; great duty when you first thought about it, but in reality those people worked schedules around the clock, with little respite from the continuous pipeline that was funneling such a massive effort through their little bailiwick.\(^{381}\) (See Marshall interview above)

Harald was very proud of his service and for being awarded the Air Medal. He agrees that outside of the airlines and the military little is known about the CRAFT, and the participation and contributions to the war made by the civilian members of CRAFT. Harald was impressed with the “teamwork between all the members of flight and support crews and the lasting friendships he made till this day.”\(^{382}\) When Pan Am went out of business Harald went with Delta Air Lines and is now retired.

Richard (Dick) Vitale, Pan Am 747 Check Captain

Dick Vitale is an extremely interesting individual. He has always been a leader and a teacher and yet he never went to college. Born in Brooklyn New York, Dick graduated from Brooklyn Tech High School at 16 years old and joined the Navy. Those who hail from New York are familiar with Brooklyn Tech, so it’s no wonder that Dick was asked by the Navy if he wanted to test out for flight school. In his own words he ‘aced’ the exams and was soon on his way to the Naval Flight Academy at Pensacola. Like Sherman Carr, Dick graduated pilot training first in his class, and because of his young age, Dick was kept at Pensacola as an instructor. Dick was 19 years old, a pilot and officer in the United States Navy and did not yet have his driver’s license. He would later fly A4 attack aircraft (Skyhawk) from the carrier USS Roosevelt – the FDR, and later was assigned on board the carrier USS America. Dick returned to Pensacola as an instructor and left the Navy in 1965. Soon after, he joined Pan Am and was still only 25 years old. Within

\(^{381}\) John Marshall, Interview.
\(^{382}\) Hoffman Interview.
two years Dick was a trainer captain on the 707s. With the introduction of the 747s to commercial service in late 1969, he became one of the first to qualify as 747 check captain. Dick would remain with Pan Am until its demise in 1991. From there he joined Connie Kalita, an all-cargo airline which specialized in flying military cargo for MAC. Connie Kalita was flying C-130s at the time of the Gulf War and Dick was there to help them integrate B-727s into their fleet. From there Dick went with a new upstart cargo airline called Atlas, and as one of the founders he stayed with them till his retirement in 1996.\textsuperscript{383}

Although part of management, Dick volunteered to fly Craf missions when the word went out soliciting volunteers. He said he was motivated by his desire to assist in the effort. He would fly approximately fourteen missions into the desert. At one point Dick and his crew were put up in Rome and flew ten missions back-to-back. Carrying about 400 troops per missions, Dick knows that he brought over 4,000 troops safely into the war zone. Indeed that was one of his greatest concerns, to carry these young people, as he described them, safely into the desert and be there for their return. Like the other crew members interviewed Dick agreed that the civilian crews received no real recognition for the efforts. He said that “when he tells his friend about what they did, they are truly amazed.”\textsuperscript{384} He also agrees that they had no special training or preparation to fly Craf missions except for the pre-flight briefings and the instructions on how to don the gas masks and chemical suits. Dick flew into Riyadh one time and asked the military what they must do if there were a Scud attack while on the ground. They advised him to start two engines at the same time rather than one at a time and begin to taxi out and take off without clearance just get into the air. He said he realized then that there were really no contingency plans for such emergencies. This was also obvious in Ken McAdams comments above. He also confirms for us that there was no special or extra compensation for flying these missions. He said he was never afraid but did think about his aircraft being hit by a missile. On one trip while approaching the Red Sea they were asked to responded to a code word for authentication. They had to scramble through their code book to find the right code. He said: “the codes were always changed on a daily and sometimes on hourly basis so you had to be right; there were plenty of naval ships below to take us out.”\textsuperscript{385}

Dick had some other interesting observations, he said:

\textsuperscript{383} Dick Vitale, Interview, April 5, 2011.
\textsuperscript{384} Ibid.
\textsuperscript{385} Ibid.
The military ATC [Air Traffic Control] were really good, professional, but once handed off to the civilian ATC there were sometimes misunderstandings. In one instance we left the Saudi peninsula and were heading back to Rome and my first officer asked for a heading to Rome but the air traffic controller didn’t understand him so he repeated Roma, Roma, and he got a heading, but as soon as I heard it I knew something was wrong, this didn’t seemed to be the direction to Rome. So I got on the line and said Roma, Fiumicino, and the controller responded ‘oh sorry, ‘I though your said Rota.’ He thought we were going to Rota Spain. I can understand, since we had MAC flight designator no one knew we were civil airliner. They thought we were heading to the military base in Rota Spain.386

Dick was proud of his crew. He had a group of young flight attendants and commented that: “I was impressed with how well these young people (speaking about his crew) were able to respond so well in difficult situations. They really took care of the troops.” 387 Dick’s most memorable experience, like most of the crew members interviewed, was on a return flight, here are Dick’s words:

We were flying from Rome to Pope Air Force Base [Fort Bragg, NC] with about 400 troops on board. It was hard to imagine what these soldiers were thinking after just coming out of the war zone and not knowing what to expect. But everything happened so quickly. We had an American flag on board and after we landed the flight engineer opened the hatch over his seat and held the flag out the top of the aircraft, and here comes this 747 taxing in with the American flags flying on top. We taxied to our parking position, right adjacent a reviewing stand with several hundred people, family and friends sitting quietly. As the soldiers disembarked they lined up in formation in their full battle gear, and the commanding officer called out “dismissed.” All hell broke loose. The soldiers were heading for their families in the stands and the families were heading for their loved ones. It was something that I never experienced before. It was magnificent seeing these kids come back home and meet their families.388

The anecdotes from Dick and the other crew members paint for us a vivid picture of what is was like flying troops into and out of a war zone. There were real dangers and uncertainties but they always performed in a professional and responsible manner. They overcame the lack of specialized training because they were already highly trained professionals in their own right. They were already conditioned to the uncertainties and the unknowns as part of their normal working environment. The real story is that they went above and beyond what was required of them. The real story is in their flawless record. The untold story however is the positive effect

386 Vitale Interview.
387 Ibid.
388 Ibid.
they had on the troops, easing their transition into a very dangerous situation, giving the troops a connection to the home front and often maintaining that connection throughout the crisis. They never asked for additional compensation. They never complained about not receiving any training. They received their true reward by giving of themselves to these young men and women who needed them at that time. The human exchange is a story in itself. A significant story missed. Nothing of this was planned in the CRAF program. Unfortunately no recognition was accorded the civil crew members in the public domain for their heroic contributions to the war effort and more so, to the soldiers, sailors, marines and airman who benefitted so greatly from their support and actions.

This representative sampling of firsthand accounts by these civilian crew members, typifies the experiences by and large, of the vast majority of commercial airline crew members who flew the CRAF during Desert Shield/Desert Storm. The following chapter will highlight several more civilian crew members from other airlines flying the CRAF during a different war to serve as a basis of comparison. The comparison will allow us to extrapolate our finding over the vast majority of U.S. professional airlines crew members and employees in the service of their country. The overall picture will help us better understand the contributions of these individuals, and better understand the role they played in the war; thus adding a new and hitherto unknown chapter to the history of that war. The firsthand accounts, featured above, are the first time this history had been told.
“Where do the heroes come from?” The narrator in the commercial asks, “They come from Atlanta.” The spots also honor the 296 Delta employees called to active duty in the war and more than 3,000 who volunteered to transport troops and supplies as part of the Civil Reserve Air Fleet, said Delta spokeswomen Catherine Stengel.389

In the preceding chapter we highlighted only one air carrier (Pan Am) and the experiences and observations of a limited number of crew members with the framework of one war. This brings up the possibility of a onetime phenomenon of several anomalous experiences. Was this just the way Pan Am crews went about their routine business? Was their “above and beyond” approach just a novelty, having to do with the first activation of CRAF in history? What was going on with the other air carriers? Were people just simply caught up in the euphoria of a ‘just cause’ to put down the blatant and brutal aggression of Saddam Hussein? Perhaps we could phrase our query thus: Would the professionalism, dedication, commitment, spirit of volunteerism and the “above and beyond” attitude of our sample crew members apply at another time, another war, and in another CRAF activation? Would it apply to other U.S. air carriers in those circumstances? The questions are limitless and demand a response. The answers to these questions will be revealed in a series of news articles presented here for our examination. First we will have to step out of our context and have a look at the second activation of the CRAF in order to make comparisons and draw some conclusions. After all, our primary focus remains on the individual crew members and their accomplishments.

On February 8, 2003, the Secretary of Defense activated the Civil Reserve Air Fleet, Stage I for the second time in history. The activation was in preparation for Operation Iraqi Freedom in which the George W. Bush Administration accused the Iraqi dictator of violating the ban on nuclear weapons, and other weapons of mass destruction. The war did not enjoy the same popular support domestically, and the international community was decisively divided. There was no unanimity as there was among nations during the 1990-91 Gulf War. Nevertheless, a consensus was successfully formed in the U.S Congress, and the go ahead was given to take

appropriate action. The merits of the war and the intelligence on which it was based are not under review or analysis here. The activation of the CRAF was legally initiated and the airlines answered the call in accordance with their commitments. It was twelve years and six months since the CRAF was first activated, and the likes of Pan Am, TWA, and Eastern Airlines and several other original Craf carriers were long gone. Some of the pioneer air carriers in U.S. aviation however, were still thriving and would pick up the slack. American Airlines, United, and Delta all saw action during the first Gulf War, but to a lesser extent. During Craf’s initial activation in 1990-91 Delta flew 26 missions, American, 98, and United flew 176. Combined, it was 71 less than Pan Am’s total of 371 missions. In this war, they would make up for the difference. Another significant difference was that by 2003 the Press was more attuned to the role and contributions of the CRAF. Stories about individual crew members however, would appear in the ‘human interest’ section and relegated to the hometown Press. It was indeed a step in the right direction. For our purposes, we can now examine, documented and published firsthand accounts in a wider variety of sources. These accounts will present us with the ability to see what continuities remained among the CARF crew members, and what changes occurred. A comparison can now be made between the original accounts which took place during the first CRAF activation, and those of the second CRAF activation. We now have a new war, a new CRAF activation, and new crew members from several other air carriers to examine. The twelve and a half year gap draws a clear dividing line between both events. Following are six newspaper accounts focusing on a variety of crew members and their experience in deploying troops to the Persian Gulf in 2003. It is interesting to note that most of these individuals served in both the first CRAF activation in 1990 and the 2003 activation as described below. Several also flew troops into Vietnam or otherwise served in that war.

On July 29, 2004 an article appeared in the Schaumburg Review entitled: “Vietnam veteran serves again.” It’s about an American Airline’s pilot named Dave Hooper and his experiences flying troops into the Persian Gulf. Schaumburg is a small town northwest of Chicago and almost half way between Chicago and Rockford Illinois. Here are some excerpts from the article:

Hooper of Inverness has been an American Airlines pilot since 1977. He grew up in Cherry Hill N.J., and learned to fly at the Citadel in Charleston S.C… Hooper made 11 Civil Reserve Air Fleet trips between February 2003 and May of this year…Hooper said the Civil Reserve Air Fleet experience was very rewarding for him because when he served in the Air Force during the Vietnam War, some people expressed a lot of negativity toward the military. ‘The military was not held in
high regard,“ he said, “There wasn’t really a warm feeling coming back from Thailand.”...He and other American Airline pilots and flight attendants...volunteered their time for these military charter operations. As a volunteer pilot for the fleet, Hooper had to be prepared to fly a mission on a moment’s notice. Before he could fly the fleet’s operations, Hooper had to go to an Air Force base to get a security briefing on current events and the use of biochemical suits. “It was a bit unnerving having to be equipped with all that.” he said. Hooper said he never really felt like he was in real danger although there was a fear of the unknown… “One particular flight as we were coming into Kuwait, we could see two planes in high orbit and the sky lit up with streaks from the planes,” he said. “It really reminds you that this isn’t the friendly skies of the United States.

Hooper and his daughter, Sharon Lennstrom... wanted to come up with a way to cheer the troops up. Lennstrom a teacher...had her students make posters, greeting cards, and letters to the troops. “Several students got letters back,” she said. Some students corresponded with family members of the soldier on a regular basis. Hooper also told stories of flight attendants who had made efforts to cheer up the soldiers. One flight attendant found a nursery to provide her with a yard of soil and grass, dirt and sod. On flights with soldiers returning home after battle, she would roll out the sod at the top of the stairs. “Even though we were still in Kuwait, we were standing on American soil,” Hooper said. Another flight attendant had coins with a religious symbol made in a jewelry store. She gave every person on the airplane one of the medals passing out a total of 1500 coins...The soldiers appreciate flying on the Boeing 777 and said they looked forward to the return flight with air conditioning and in-flight movies.390

There are several familiar refrains in Captain Hooper’s account. The ghost of the Vietnam experience is alive and well, but for Hooper, it was personal. Comments about returning Vietnam veterans have surfaced several times, in our interviews and news articles, and a few words on Vietnam and its relevancy to our study is appropriate. We will return to that topic immediately following our analysis of these news articles. Hooper’s comment on not having any fear except the fear of the ‘unknown’ hadn’t changed since the previous war. The long flights, the extra relief crew, and the spirit of volunteerism hadn’t changed either. Going ‘above and beyond’ such as having school children write letters to the troops and decorating the aircraft cabin with posters and greeting cards made by the school children, was consistent with the earlier experience. The flight attendants using their own time to go to nurseries or jewelry shops to provide something special for the troops demonstrate how they continued the “tradition” of using their own personal time and resources. Taking a piece of soil and turf halfway around the world though, might be a

little more creative and original than we heard about previously, but that is more in line with a personal initiative. It is interesting to note just how far a crew member would go to impress the troops and give them something to talk about. There was however more focus on crew preparation such as the pre-operation’s briefings at the Air Force base. This was indeed a positive change.

The Dallas Morning News ran an article on March 25, 2003 entitled “Commercial crews fly troops to battle: It’s an opportunity to really take part in a …patriotic responsibility.” The article features another American Airlines captain by the name of Bart Roberts. Captain Roberts was a former Navy pilot, who at the time had already made three CRAF flights. Here are some excerpts from the article:

“It’s been a privilege,” Captain Roberts says of the troops he ferries to the Middle East…“I am pretty passionate about the patriotism that these people are living. It’s an opportunity to really take part in a very important patriotic responsibility.” He said they [his three CRAF flights] have been the highlight of his career at American which began in 1986. CRAF crews usually get their orders the last minute from the Air Mobility Command * at Scott Air Force Base in Illinois. Besides the military passengers there were other changes to a commercial crew’s routine, including dealing with varying weather patterns and different procedures. “We are going into regions that we’re not usually flying to,” Capt. Roberts said. Capt. Roberts said his young passengers’ moods vary. There’s uncertainty, but there is also determination. It helps, he said, “To realize that you’re going to be the last touch to the normal world before they step off that airplane into a truly unknown world to them…To help them relax, flight attendants joke with the soldiers and draw some of them out by playing bingo. Afterwards Capt. Roberts said, crews are proud that they were able to serve their country, even as civilians. The memories, he said, last a lifetime. “The picture that I wish I had a camera with me was a couple of us saw this young Marine walking up the aisle, a female probably in her early twenties,” he recalled, “And as she was walking toward us, in one hand she had her machine gun, in the other hand she had a pillow with a Snoopy in it…I’ll never forget that image as long as I live.” 391

For sure this experience mirrors that of Alan Loflin’s article in the “Clipper’ where he talks about the young female soldier about 20 years old snuggled up with her blanket and her M-16 by her side. The image of the young, inexperienced soldier traveling to a far off and inhospitable

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* The Military Air Command - MAC changed its name to the Air Mobility Command – AMC on June 1, 1992.
http://www.lexisnexis.comproxy.lib.fsu.edu/lnacui2api/Printdoc.do?jobHandle=...
land, not knowing what to expect, is a theme that runs through both parallel accounts. The emotions that these images evoke from the crew members, the empathy, or more properly sympathy, and in all cases, the feeling of responsibility and protectiveness, is and will became more obvious as we read on.

The following article is about a Delta Air Lines Boeing 777 Captain, Sergio Rodrigo and several other Delta crew members. It appeared in the Atlanta Journal Constitution on April 30, 2003, and was entitled: “Delta Crews Line up to fly Military Charters.” Here are some excerpts:

It took me about half a second to say yes when the scheduler called,” said Rodrigo, a Boeing 777 captain who flew his first CRAF trip at the end of the 1991 Persian Gulf War. “Flying these trips is an honor. It’s a small thing that we can do for the military people who lay down their lives for us. It’s a way to say thanks.”…Unlike regular trips governed by strict FAA duty-time restrictions, CRAF crews stay on the job as long as it takes. Much of the flying is done at night…”it’s like a military mission.” Rodrigo said. “You go until they tell you to stop.

Flight attendants decorate the interiors with American flags, and red, white, and blue streamers. The formalities are gone, and flight attendants make sure each plane is well-stocked with meals, soft drinks, snacks and movies. “Our plane is the last touch of America that these soldiers are likely to get for a very long time,” said Nancy Patterson, a Delta Flight Attendant. ‘Lots of people look for ways to support our troops, but I feel blessed because I’ve got an opportunity to actually do it.” Patterson brings her camera, takes hundreds of pictures of soldiers and sends them to their loved ones when she returns. A table in her Greensboro home east of Atlanta is covered with photos and heartfelt letter of thanks.

Judy Charles, a Delta flight attendant for 35 years, has enough seniority to avoid long trips that keep her away from her Atlanta home. But the daughter of a WW II veteran says she’s been volunteering for CRAF trips that regularly keep her on duty18 hours at a time. “I feel a calling to do these (CRAF) flights. The passengers are so polite and so gracious. There’s a real feeling of togetherness. They ask for nothing, they never complain – but we can’t do enough for them.”

Oke Pearson, a former Air Force Pilot who now flies MD-11s for Delta, spent 10 days in Europe last month flying CRAF trips. It was the longest he’d been away from his wife and four kids since joining the airline. But Pearson said he wanted to be part of the war effort. “You know you are going to miss some Little League games,” he said. “But there’s pride that comes from doing this that’s hard to describe. There’s a lot of camaraderie among the crews because you know that everyone who’s there wants to be there.”

A Delta flight attendant who has made several CRAF trips said she was struck by the youth of combat soldiers. “So many of them are just kids,” she said. “I had a lump in my throat the whole time.”
George Rickley, a 767 pilot who has flown several CRAF trips, says soldiers have changed since 1969 when, as a young Marine officer, he rode a Pan Am jet to Vietnam. “There’s a quiet resolve and enormous professionalism in the military today,” he said. “Everyone seemed quite focused on the job they were going over there to do, and they were completely confident that they would succeed.” Rickley stands outside the cockpit door at the conclusion of each CRAF flight and gives each soldier an encouraging word as they leave. “I tell them that I flew out of Da Nang when my tour in Vietnam was over,” he said. “And I let them know that they’ll be flying out too. I hope I’m part of the crew that brings them home.”

In the following example we have two articles from the Sunday Gazette Mail about a United Airlines flight attendant by the name of Susan Dainese-Dowell. The first article appeared on April 6, 2003 and the second on July 15, 2003. Here are some excerpts in chronological order:

[April 6, 2003] You might think that troops are flown to theater of war in troop carrier planes. In fact, civilian carriers with civilian crews are often used for these flights under the auspices of the Civil Reserve Air Fleet. That’s how Charleston native Susan Dowell, a United Airlines flight attendant, came to fly to Kuwait recently on a plane loaded with soldiers carrying full battle gear. A Charleston Catholic High School graduate, and a flight attendant since 1968, Dowell was among UAL’s flight crew volunteering for CRAF duty. The flight ferried 340 Fort Hood soldiers from Germany to Kuwait, according to Dowell’s parents…”Susan has pictures of the troops and lots of rifles, machine guns, etc., all on the B-747.” One of the ladies brought 200 stamps and collected letters that she mailed after returning.” The flight crew were fitted and trained in chemical suits and masks, then flew a 24 hours “duty day” into and out of Kuwait…Talking to the soldiers during the flight was pleasant,…some wanted to show pictures of their families, Dowell reported. “But when they got off the plane, everyone had their ‘game face’ on,” she said.

[July 15, 2003] Charleston native Susan Dainese-Dowell has flown lots of flights as a United Airline flight attendant for more than three decades. But in the run up to the Iraq war she took what she called her most rewarding journeys ever…The flight attendants were outfitted with chemical suits and gas masks and the B-747 flew with its lights off and shades drawn into Kuwait. Fortunately they were able to spend most of the time keeping the soldier’s thoughts on home and family rather than battle. “I was working the upper deck and I passed this flag around and all the guys signed it and wrote things like, ‘please come back and get me.’ We brought letters from all these kindergartens and grade schools because they wanted to be pen-pals,’ said Dainese-Dowell…”These guys took the letters and wrote back to them.”…”We must have brought 200 letters

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back. My girlfriends and I had a list of parents to call,” she said. ” There were real dangers- Scud Missile fire delayed a similar flight’s departure, she said. Was she scared” “No not at all – to see those guys going off, and what they did!” She’d do it again, she said, for one reason. “Now I want to go back and bring ‘em home.”

Another United Airlines flight attendant was featured in the Telegraph-Herald in Dubuque Iowa. Her name is Susan McMullen; and she had been flying for 36 years when the article appeared on May 3, 2003. She has a slightly difference approach than most of her colleagues because of her humor, but it’s not much different from what we heard Captain Sherman Carr use on the troops twelve and a half years prior, when he joked about serving them MRE’s. Here are some excerpts from the article:

McMullen’s first stint in military airlift operations was during the Operation Desert Storm in 1991. Before her airplane takes off, McMullen said she often likes to tease the soldiers. “I’m sure you’re wondering why your flight attendants aren’t young, sexy and beautiful,” she says, “It’s because it’s on a voluntary basis, and according to seniority, those most senior win, that’s why we are here.” “A lot of us have sons maybe even younger than the military men…For those of us who are mothers, these guys are special.” McMullen recalled a 7th Calvary soldier asking if he could take the flag to fly over his tank. “Oh, we’d be honored,” McMullen said, “Yes, Please take it.”…And here I’m watching CNN, the 7th Cav. is charging over the desert in Baghdad, and our flag is flying on that tank. Those are my boys going into Baghdad, I’m thinking. Of course, it’s not the exact one, but just the thought that they wanted to do something special for us because they knew we had gone out of our way to decorate the airplane.”

For many soldiers, exiting a United airplane is their last taste of America for months. “I always want to make sure that the last words they hear is how much we love and appreciate them,” she said, “ and that we will be back to get them.”

At this point it is safe to say that it is truly amazing that the two groups of crew members under analysis, both in this chapter and the previous one, are making the same comments and in the same words to describe their personal involvement with the troops. That involvement often continues long after the flight has ended and extends well into their personal time, and personal lives. ‘Above and beyond’ is inadequate to describe the interaction between the troops and the airline crew members.

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The last article we will examine is about an American Airlines flight attendant whose story wraps up this summary by bringing together all of the dedication, professionalism, and personal involvement we’ve seen so far. Her work experience also included volunteering to fly troops to Vietnam during that war, Desert Storm, and the 2003 War with Iraq. Lynne Jones’ story begins while she was speaking to a Kiwanis club meeting in Elgin Illinois. It appeared in the Courier News (Elgin) on June 18, 2003. Elgin is near Schaumburg Illinois where our first article was written. That article spoke about an unnamed American Airlines flight attendant who gave out religious medals to the troops as they deplaned. This article leads us to believe that flight attendant was Lynne Jones. Here’s her story:

American Airlines flight attendant Lynne Jones speaks to the Kiwanis Club of Elgin on Tuesday about her experiences delivering troops into combat and back home to their families again during Vietnam, the Gulf War, and Operation Iraqi Freedom. Lynne Jones, in her flight attendant uniform, and her brother Richard Carlson, a Marine who serve three tours in Vietnam, stand next to each other…An airline employee with more than 40 years on the job, Jones helped fly American troops into and out of Kuwait and other military locations throughout the Middle East. “Over the last five months American Airlines flew over 210 such missions,” Jones said, “I was on a lot of them.”

All cockpit and crew members were volunteers, said Jones, who told the local Kiwanians how she came to know the troops on an individual basis during a series of long flights. “You talk to them with an open heart,” she said, referring to her conversations with the troops. “There were many shared hugs and tears.” There were tears Tuesday as well, with Jones trying to choke back emotion as she talked about the flights, including similar missions during Vietnam and Gulf wars. Those too were done voluntarily. “These experiences have helped me draw my own comparisons to the men and women who serve in the three wars,” she said.

**Vietnam vs. Gulf War (1990-91)**

More than anything else, draftees during the Vietnam War were angry, Jones said. “This created great anxiety and animosity on board the flights, she said, adding however, that enlisted military personnel of that time were on a committed mission.” Even so, upon arriving home, they were never appropriately welcomed, either, she said… In Iraq, we were fighting a smart war, complimented by dedicated individuals,” Jones said. During the Vietnam War era, transport missions were basic, adding that bare-bones flights lacked even soda for the troops to drink…”During the Gulf War, {Desert Storm} we welcomed troops with decorated airplanes,” Jones said. “We tried to give them that little ‘extra.’ I brought movies from home for them to watch on board. I also purchased 250
guardian angel pins each flight, with the cost divided among our crew.” As the troops deplaned crew members of American Airlines pinned the angels on their shoulders.

**Putting Troops First**

For the latest trips to the Middle East, Jones said she wanted to do “something special.” She talked to the owner of a Geneva gift store called Cocoon, asking about purchasing religious tokens for the troops. “Instead of selling the token, the store owner donated them,” Jones said. Jones handed out about 3000 of the tokens. Her final flight to the Middle East landed last week. She told of talking to one soldier who was in Baghdad. “He was there as the city was being bombed,” Jones said. “He wasn’t sure how he could talk to his family about the war…He was having nightmares.” Jones told him he had to talk to his wife, he had to let her know what was going on.” “I said, we’re all here to support you.” During the flights to and from the Middle East, she would let the troops use her cellular telephone to call loved ones at home. “I won’t even discuss the telephone bills, she said. “But they were worth every penny.” She helped troops write letters. “You get close to people during war,” she said.396

Six firsthand accounts from crew members representing three different airlines, at a different time, in another war, yet their behavior mirrored that of the Pan Am crews twelve and half years prior. In both examples we heard mention of Vietnam and in each case it was in reference to troop morale or efforts by the crews to make the troops know they were supported. The crew members went out of their way to assure the troops of their support and further, to assure them of the support of the American people. This is exactly how the airlines crews were visualized by the troops, and that was as an extension of the home front. The troops saw the civilian crew members as a link between them and the American people. More importantly the crew members realized it, and behaved accordingly. This of course is a reflection of their professionalism, training, and awareness. The ghosts of Vietnam underlie many aspects of this dissertation: the crew’s behavior, the troop’s anxieties, and the war itself. As a matter-of-fact even Saddam Hussein believed the Americans did not have the intestinal fortitude for war, as he understood from America’s Vietnam experience.397 It also played a part in President Bush’s approach to the war. Saddam was sure that if he could prolong the war or exact heavy casualties on the U.S. the American people would turn on their government forcing a withdrawal or retreat. So Saddam engaged in delaying tactics. On the other hand, the President wanted to act with dispatch and

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gave his generals a free rein in the conduct of the war because of the lingering doubts leftover from the Vietnam experience. The doubts approached the level of paranoia and were etched deeply in the American psych.

The Vietnam War casts a long shadow and defines a pivotal period in American social, political, and military history. Our involvement in Vietnam, at the time of Desert Shield/Desert Storm, went back nearly twenty years. Shortly after the French were ousted from Vietnam following their defeat at Dien Bien Phu 1954, America gradually filled the void left by their departure. The aim was to prevent Communist North Vietnam from taking over the South. It fit in with President Eisenhower’s ‘Domino Theory’ and that was, when one country fell to communism its neighbors would fall like dominoes. President Kennedy upped the ante in 1962 by sending to Vietnam a major contingent of U.S. troops and thus marked the real beginning of U.S. involvement. Fighting and the escalations of troops would continue till 1973 when a peace deal was struck under President Nixon through his abled and skilled negotiator Henry Kissinger. This war however, was not like any other in American history, and had a significant effect on events described in this dissertation. It begs a brief explanation, given the many reference to the Vietnam by our crew members and some of those in the military. First and foremost the Vietnam War was ill-defined. There were no territorial objectives as commonly understood in warfare; and the war was variously defined as a civil war, insurgency, guerilla war, and/or revolutionary war. Victory was measured in enemy body counts, and the success of a program called ‘pacification.’ Many Americans and U.S. allies believed Americans did not have any justification to be involved in Vietnam’s problems. To add fuel to the fire the Vietnamese government in the South, which the Americans were supporting, was manifestly corrupt. No one was sure how the South Vietnamese people felt themselves, except perhaps those Vietnamese who had a vested interest in the status quo. The fact that the U.S. spent billions of dollars in executing this war; and sent over 52,000 young Americans, mostly draftees, to their death, was too much for the American people to bear. Every American was touched in some way by the war’s ever rising death toll: a cousin, a neighbor, a high school classmate, a close friend or just a casual acquaintance; someone’s name you knew could be found on the “Wall” at the Vietnam Memorial in Washington. The war touched all Americans in some way, mostly negatively.

Something was just not right about that war. The fact that the military’s hands were tied by micro-managing politicians, whose shifting policies were based on the polls, only added a surreal
context to the whole affair. The American people – to use a then popular expression – “turned off and dropped out.” It was the first time in history that the horrors of war were broadcast on nightly TV in living color. Repetitiously, reporters would drone on with daily body counts. Images of medevac helicopters ferrying the dead and wounded out of a jungle 10,000 miles from home would flash across the screen. There were no clearly defined objectives. No one in authority could truly say why we were there. This went on for the better part of ten years. The war however was only one side of a complex upheaval then going on in the country. It all seems to have begun not too long after JFK’s assassination, and would slowly come to an end not too long after the assassinations of Martin Luther King and Bobby Kennedy. Framed between these assassinations, the Country would go through a fractious and tumultuous period that included: The Civil Rights Movement, the Women’s Rights Movement, the Anti-War Movement, and surge of anti-authoritarianism, where policemen were referred to as “pigs” and “no over thirty was to be trusted.” It was the Woodstock era where everyone was high on pot, stripping down, making love, or turning up the music. Draft Cards along with bras and American flags were burned, young men of draft age were fleeing to Canada and soldiers returning from the war front were spat upon. Even a young officer by the name of Schwarzkopf had some interesting comments on his return from his first tour in Vietnam in 1966:

> At Newark Airport I climbed into a Taxi. Wearing my uniform with all my ribbons and my Vietnamese airborne beret, I kept waiting for the driver to make a big fuss and exclaim, “Hey you’re just back from Vietnam, aren’t you!” nothing. So I fed him hints like, “Gee I haven’t seen Newark for a while.” But he dropped me at my mother’s place with scarcely a word…I couldn’t think about anything but Vietnam. The war was all over the newspapers, but people seemed not to care. Even when mom introduced me to a few of her friends, they only said things like, “Well, I guess now you’ll be able to get on with your life.” No one wanted to know about Vietnam: the public wasn’t caught up in the war, not at all like the spirit I remembered for my boyhood, during World War II. After two days I wanted to run through the streets yelling, “Hey! In Vietnam people are dying! Americans are dying! How can you act like nothing is happening?”

And the war would run on for another six years. People didn’t care and were looking for distractions. The drug culture ruled. While Timothy Leary was singing the praises of LSD, the younger generation were shouting “make love not war,” and “turning on and tuning out,” to play on the expression used above. And while the politicians debated, the Chicago Police force was

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rioting against journalist and demonstrators outside the Democratic Convention in 1968, and National Guardsmen were shooting down students at Kent State (1970). Soldiers returning from the war wore civvies, and outside of family and friends, never mentioned they served. The “silent majority” closed their doors and pulled down their shades. The effects were long lasting.

The 1990-1991 Gulf War would test the American resolve for the first time in twenty years. As the buildup of troops began in the Persian Gulf, at the point where we began this dissertation, everyone was holding their breath: the President, the generals, the troops, and the American people. Everyone who lived through or was affected by the Vietnam War was well aware of the “Vietnam Syndrome” and what might have happened. It is a tribute to the flight crews that they were well aware of the Vietnam experience and how it related to the troops they were carrying. There were no briefings from the military or from within the air carriers about what might be referred to as sensitive issues. That is what it is so amazing about the civilian CRAF crews. They instinctively knew what had to be done. They were not going to let happen to the troops under their care, what happened to the troops returning from Vietnam. Indeed, as we have heard above, some crew members had served in Vietnam either as airline crew members or in the military, but the vast majority did not. The high quality of the professional airline pilots and cabin crew and the important role they played in the CRAF’s first activation was much more than anyone ever imagined. That it continued in a subsequent deployment validates that it was no anomaly.

Summary and Conclusion

The history of U.S. civil aviation has been inseparably bonded to its military counterpart since the earliest days of aviation. The civil component has come to the aid of the military in times of war and crisis and in turn, the military has provided a substantial transportation market for the airlines during peace time. Another part of this relationship are the many employment opportunities the airlines provide for former military pilots, mechanics, engineers, and other aviation specialists. This in turn adds to the airlines’ military character and serves it well in its dealings with the Department of Defense.

The key element in the relationship however is its voluntary nature. The government cannot compel the airlines to provide them with aircraft and people, except of course in a declared national emergency. Relying on compulsion however is counterproductive as it implies coercion and resistance and perhaps some hostility. Moreover, its ad hoc nature robs it of any well-conceived planning and preparation. We discussed the catastrophe that was avoided in WW II
when the first president of the Air Transport Association, Edgar Gorrell, devised a cooperative plane of action for the U.S. airlines to support the mobilization, and then sold it to the administration. Gorrell was a man of great vision and keenly aware of the military potential of aviation. He was himself a West Point graduate, former colonel in the Air Corps and one of the nation’s earliest aviators. Had Gorrell not initiated his plan of cooperation between the War department and the nation’s civilian aviation sector, compulsory mobilization would have taken place just the same. The nation’s fledgling airline industry would have been set back and the war effort may have been prolonged. Equally important, was the model that Gorrell created for the future relations and partnership between the nation’s military and its commercial airlines. The end result would be the creation of the Civil Reserve Air Fleet.

The Civil Reserve Air Fleet was devised to provide the needed transportation in times of war or national emergency on the one hand; and on the other, to insure the health and viability of the nations’ air carriers. This goal was achieved in two ways: First by assuring that the airlines share the responsibilities of providing the nation’s transportation needs in times of crisis in a fair and equitable manner; and are adequately compensated. The second component of the program is to reward the airlines with peacetime contracts based on their contributions to the CRAF program. It is a win-win solution to the nation’s needs and has become part of the National Airlift Policy. There is in addition a third winner, and that is the taxpayer. By using the assets of civil aviation, the military avoids the onerous financial burden of maintaining a much larger fleet of transport aircraft – plus trained crews and service personal to man them in times of need. Since the ‘times of need’ are few and short, the savings are in the billions of dollars annually. In testimony before the Committee on Public Works and Transportation, House of Representatives, Travis Duncan Research and Special Programs Administrator at the DOT had this to say about saving tax dollars: “Commercial air carriers are relied upon to provide airlift required by the DOD that’s not available within the current existing military fleet, thus saving [the] DOD about $10 Billion in general investment.” 399 More significantly, Brigadier General Gilbert Regan testifying seven years later in May of 1997, had this to say on savings to the taxpayers: “The CRAF program saved the DOD about $1 to $3 billion dollars annually over the past 30 years. That represents a

399 Travis Duncan, Hearing before U.S. House of Representative’s Committee on Public Works and Transportation. (Washington DC, 10 October 1990), 9.
total cost avoidance for the taxpayers of up to $90 billion dollars, and the savings go on, year after year.\textsuperscript{400}

Oddly, the linchpin that holds the whole program together remained in the dark, unmentioned, until the second activation twelve and a half years later. There was no mention of it in the official CRAF literature, and as we hammered away in this dissertation, it was never mentioned in any of the supplemental literature, and even missed by the Press. The CRAF is totally dependent on the voluntary participation of the civilian crew members who man and operate the civilian aircraft. Once an air carrier voluntarily joins the CRAF and makes its commitment to provide a set number of aircraft and crews for the various stages of the CRAF activation, the problem is theirs to meet the commitments. The whole CRAF operation would collapse if sufficient volunteers did not materialize. Should the air carriers fall short of meeting their crew requirements management crews would have to be called on. Unfortunately, there are a limited number of management pilots, and flight attendant etc. who could step-in in an emergency. They could never have sustained anything in the nature of a Desert Shield and Desert Storm. Fortunately, as we have seen, there was no shortage of volunteers. It is to those who volunteered that this dissertation is focused on. They are the unsung heroes who we “showcased” in the previous chapter.

Considering the overall success of the CRAF operation and its significant contributions to the war effort, we must recognize those who made it happen. We must also recognize their professionalism, dedication, commitment, and for lack of a better word their “above and beyond” attitude and performance that made the civilian crew members exceptional. As an all-volunteer force without specific training, they chalked up a near perfect record flying over 320,000 troops; and their participation went way beyond what was required of them. The “above and beyond” that we’ve been discussing is not just a platitude. The psychological impact on the troops was indeed significant. Without resorting to any professional litmus test, we quoted the words of the troops themselves and the first hand observations of the pilots and flight attendants. There should be no doubts that the troops’ morale was boosted just at the time it was needed most. Equally important, the troops were reassured by the civilian crews that they wouldn’t receive a hostile welcome on their return home as happened after Vietnam. Many crew members kept the

\textsuperscript{400} Brig Gen. Gilbert Regan, Subcommittee on Aviation, Committee on Transportation and Infrastructure, U.S. House of Representatives. over 11,000 of these (Washington, DC. May 1, 1997),71.
relationships ongoing by serving as intermediaries between families and the troops by carrying mail, phoning families and sending photos. The other side of the equation is how this experience affected the crew members. It certainly brought out the best in them. Above all, they saw and felt the anxiety of the young men and women who were sent to a far off land on the eve of war. As the crews went back and forth, into and out of the war zone ferrying fresh troops in an uninterrupted pipeline, they passed their feelings and sentiments to their home town communities. In turn they passed on to the troops the love, concern, and support of the American people. Their service was more than a link to the home front; it was an exchange and assimilation of feelings and sentiments. The experience was perhaps unparalleled in American history. The bolstering of troop morale was not planned or anticipated within the framework of the CRAF program. Yet there is convincing testimonial evidence within the interviews that the crew efforts were positive. Heavy emphasis has admittedly been placed on the so called “above and beyond” effort that CRAF crew members made on behalf of those troops under their care. It went way beyond their duty hours, and for some it became a personal commitment. But it was really in the performance of their normal duties that they shined so brightly. They delivered over 320,000 troops safely into and out of the war zone, a distance of 7,000-10,000 miles. While in their care, the troops were treated with all the respect, courtesies, and amenities that time allowed. Added to that was good food, entertainment, and personalized service. A point well-established by now, but worth repeating, was that all the crews were volunteers and received no additional compensation. Their performance put in place a massive military force in record time which resulted in the defense of Saudi Arabia and its strategically important oil fields. Their efforts led to the swift eviction of the Iraqi occupiers of Kuwait. Their efforts brought U.S. troops home in record time, helping the United States keep its commitment to the Saudis.

The lack of recognition remains the single most disappointing factor. Among all of those interviewed or otherwise researched, there appears to be a unanimous agreement that flying the CRAF was one of the most satisfying and memorable accomplishments of their careers. The fact that very little is known about them outside of the military and the airline industry, as individuals or as a group, is a loss to the historical record of the war, and of the times. The fact that the American public is not aware of what these individuals accomplished, is truly a deficit in their own history, and their own self-awareness; because the civilian crew members who flew the
CRAF are from their very ranks. The crews have always represented the American people from which they are drawn, and indeed, they represented them well.

This dissertation – to our knowledge – is the first attempt to gather and collect the history of the civil air crews who volunteered and served in the 1990-1991 Persian Gulf War. It is the first time their story had been told – in their words, and as such, it is a beginning.
APPENDIX A

MAPS
APPENDIX B

AWARDS
THE UNITED STATES OF AMERICA

TO ALL WHO SHALL SEE THESE PRESENTS, GREETING:

THIS IS TO CERTIFY THAT

THE PRESIDENT OF THE UNITED STATES OF AMERICA
AUTHORIZED BY EXECUTIVE ORDER, MAY 11, 1942
HAS AWARDED

THE AIR MEDAL

TO

FOR

MERITORIOUS ACHIEVEMENT

WHILE PARTICIPATING IN AERIAL FLIGHT

17 JANUARY 1991 TO 11 APRIL 1991

GIVEN UNDER MY HAND

THIS 19TH DAY OF APRIL, 1993

RONALD R. MOLEMAN
General, USAF
Commander
DEPARTMENT OF THE AIR FORCE

THIS IS TO CERTIFY THAT

THE CIVILIAN DESERT SHIELD AND DESERT STORM MEDAL

HAS BEEN AWARDED TO

FOR

OUTSTANDING ACHIEVEMENT

GIVEN UNDER MY HAND
This Fifteenth Day of April 1993

RONALD R. FOGLEMAN, General, USAF
Commander, Air Mobility Command
APPENDIX C

IRB
Office of the Vice President for Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8670 • FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 11/14/2011

To:

Repl: INTERDISCIPLINARY HUMANITIES

From: Thomas L. Jacobson, Chair

Rec: Use of Human Subjects in Research

The role of civilians in the Gulf War of 1990-91 through the Civilian Reserve Air Force (CRAF)

The application that you submitted to this office in regard to the use of human subjects in the proposal referenced above has been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Expedited per 45 CFR § 46.110(f) and has been approved by an expedited review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 01/12/2012 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to ensure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is FRA00006446.

Cc: John Kelsoy <jkolson@fsu.edu>, Chair

LSC No. 2010.5423

184
RE: APPROVAL MEMORANDUM

Date: 09/07/2012

To:

Address:

Dept.: INTERDISCIPLINARY HUMANITIES

From: Thomas L. Jacobson, Chair

Re: Re-approval of Use of Human subjects in Research:
   The Role of Civilians in the Gulf War of 1990-91 through the Civilian Reserve Air Fleet (CRAF)

Your request to continue the research project listed above involving human subjects has been approved by the Human Subjects Committee. If your project has not been completed by 12/31/2012, you are required to renew approval by the Committee.

If you submitted a proposed consent form with your renewal request, the approved stamped consent form is attached to this re-approval notice. Only the stamped version of the consent form may be used in recruiting of research subjects. You are reminded that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chairman of your department and/or your major professor are reminded of their responsibility for being informed concerning research projects involving human subjects in their department. They are advised to review the protocols as often as necessary to assure that the project is being conducted in compliance with our institution and with DHHS regulations.

Cc:
LISC No. 2011.7586
The College of Arts & Sciences
Interdisciplinary Program in the Humanities

Privacy Rights and Consent Form

The purpose of the proposed interviews is to obtain the personal experiences of commercial airline crew members during their participation in Persian Gulf War of 1990-1991 known as desert storm. The information gathered from the interviews will be used in a doctoral (PhD) dissertation and possibly a follow-up book. The publication of this material requires the following disclosures and consent. If you are willing to be interviewed and are comfortable discussing your experience during that operation, please read the following information carefully. Your right to privacy is explained below.

Benefits/Risks: the material you provide in this interview will assist in telling the story of the dedication, sacrifice, and in some cases heroic efforts of professional commercial air crews and the part they played in history's largest wartime airlift. Your confidentiality and those of other crew members will become part of history which is to be an uncensored story. We realize that for some there is a chance that recalling their wartime experiences or making these experiences public might arouse some discomfort. We will respect your wishes to accommodate any concerns you may have. Your right to privacy will be respected in the extent allowed by law. Your right to participate (or not) is always voluntary.

The principal researcher in this project is Charles Humbracht, a doctoral candidate at Florida State University, who can be contacted at [Insert Contact Information]. The supervising professor supporting the project is Dr. Peter Gogarty, department of history Florida State University, who may be reached at (541) 964-3641, email pgogarty@fsu.edu. For additional information on the research project you may contact the Research Office at Florida State University, Human Subjects Office [Insert Contact Information].

The interviews may be conducted face-to-face, over the phone, or by mail, and will consist of a series of closed and open-ended questions and last from forty-five minutes to one hour. At your request, the questions may be provided in advance.

Disclosure and Consent:

By signing this document, I am consenting to be interviewed by Charles Humbracht for the expressed purpose of collecting data (information) on my personal involvement in the conflict or actions that occurred during the 1990-1991 Persian Gulf War.

I understand that I do not have to answer all the questions presented to me. I also understand that my participation is voluntary and there is no penalty for non-participation.

I understand that any name may be used as the source of my response, and I have the right to have my name withheld by indicating so on the bottom of this form, in which case I may be quoted as an anonymous source.

I also understand that the information I provide will be used in a dissertation, book, or both, and may be quoted in other works after project completion in accordance with my privacy guidelines as stated above, and that pertinent to the information I provide in the interview.

I also consent to be recorded by audio or video in-person or over the phone if I do not wish to be recorded I may indicate so below.

I also agree to allow the recording of my interview to be donated and kept on file in the oral history project at Florida State University unless I indicate otherwise below, in which case it will be destroyed after publication.

I have the right to request that the information I provide in the interview be withheld at my request upon the request of the interviewer after which it will be too late to do so.

I understand that my name and address, phone number, email contacts, will be kept on file in combination with my interview and will not be shared with any data bank or be shared with any organization, group, company or individual for any reason except to verify the authenticity of my interview. My personal written information and privacy will always remain confidential to the extent allowable by law.

I have read and understood the above.

Name: ________________________
Date: ________________________

FSU Human Subjects Committee: Approved on 1/4/11. Valid after 1/13/12. HSC# 2010.5423

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Check below, if applicable: by checking off the items listed below, I am withholding the following consent:

___ I desire that my name to be withheld and my responses be quoted as anonymous
___ I desire not to be recorded and will provide a written response
___ I do not want my responses to be donated and held at the oral history project at FSU

FSU Human Subjects Committee Approved on 1/14/11. Void after 1/13/12. HSC# 2010.5423
REFERENCES

Primary Sources

Interviews:
Carr, Sherman. Former Pan Am 747 Captain, Interview face-to-face with Charlie Imbriani, Fort Lauderdale: March 1, 2001.


Graham, Clair. Former Pan Am Flight Attendant, Written Interview, April 9, 2011.


Marshall, John. Former Pan Am 747 Captain, Interview face-to-face with Charlie Imbriani, St. Louis, March 12, 2011.


Petroccione, Lucio. Former Pan Am Mobility Representative, Interview face-to-face with Charlie Imbriani, Atlanta, March 15, 2011.


Vitale, Richard. Former Pan Am 747 Captain, Interview face-to-face with Charlie Imbriani, Fort Lauderdale: April 5, 2011.

Published Sources:


Newspaper Articles: (by date)


“Clipper Attacked by Swarm of Planes: Captain Says Hong Kong Raiders Nearly Collided in Melee,” New York Times, December 10, 1941. (Florida State University libraries data base)

“First Raid Not a Test: Hong Kong” New York Times, December 11, 1941. (Florida State University libraries Data Base)


**Government Publications:** (by date)


Legal Citation: 49 CFR 1.47 *Delegations to Federal Aviation Administrator: Title XIII Insurance Program*, Washington: 1994.


Harris, Jerry D. Major USAF. *Civilian Reserve Air Fleet: Should the USAF Use it Routinely?* Maxwell AFB: Air University, March 1997.


**Secondary Sources:**


<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Publisher</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gow, James ed.</td>
<td>Iraq, The Gulf Conflict and the World Community</td>
<td>London: Center for Defense Studies, Brassey’s (UK)</td>
<td>1993</td>
</tr>
<tr>
<td>McCain, Thomas A., and Leonard Shyles</td>
<td>The 1,000 Hours War: Communications in the Gulf</td>
<td>Westport: Greenwood Press</td>
<td>1994</td>
</tr>
<tr>
<td>Morris, David J.</td>
<td>Storm on the Horizon: The Battle Changed the Course of the Gulf War</td>
<td>New York: Free Press</td>
<td>2004</td>
</tr>
<tr>
<td>Murray, Williamson</td>
<td>Air War in the Gulf</td>
<td>Baltimore: The Nautical and Aviation Publishing Company of America</td>
<td>1995</td>
</tr>
</tbody>
</table>


Willett, Robert L. *An Airline at War” Pan Am’s China National Aviation Corporation and its Men*, Copyright 2008. (City, Publisher N/A)


BIOGRAPHICAL SKETCH

Following High School Charlie enlisted in the Marine Corps and served for four years 1959-1963. He spent two years with the Marine detachment on board the USS Independence, an attack aircraft carrier. While on board the USS Independence he deployed twice to the Mediterranean, once during the “Berlin Crisis,” June – November 1961, and was later deployed to Cuba during the “Bay of Pigs” invasion, April 1961. Charlie completed his tour in the Marine Corps with Second Recon Battalion Camp Lejeune, N.C. With Second Recon Battalion he deployed once to the Mediterranean and twice to the Caribbean where he was part of the blockade of Cuba during the “Cuban Missile Crisis” October 1962.

Charlie worked for Pan American World Airways for 27 years in various capacities. In August of 1991 as an operation’s manager, he was assigned the CRAF operation with Pan Am and worked at more than ten U.S military installations to assist in deploying U.S. troops to Saudi Arabia during Desert Shield. In January 1991, as the air war began, Charlie was sent to Rome to fly on the troop flights in to the Saudi Arabian desert during Desert Storm. Charlie flew on twenty-seven flights into the theater of operations during the war and was awarded the Air Medal and the Civilian Desert Shield/Desert Storm Medal. He also flew to the Persian Gulf on CRAF flights from the U.S. Airbase in Ramstein, Germany and from the NATO air station in Sigonella Sicily. Charlie ended his aviation career with Delta Air Lines in December 2001. With Delta he served as the Station manager in St. Petersburg Russia from 1993-1997. He also managed the Delta stations in Gainesville, and Tallahassee, Florida.

Charlie holds a BA in Italian language from St. John’s University in New York, which included one year at the University of Milan, Italy. He also holds a BA from Florida State University in History and an MA from FSU in the Humanities. Charlie taught at Florida State for seven years as a graduate teaching assistant. He taught Ancient, and Medieval-Renaissance civilization, in the western tradition, and Middle Eastern and Islamic culture courses. He is presently working on his PhD dissertation which focuses on the civilians who participated in the 1990-91 Persian Gulf War through the Civil Reserve Air Fleet.