CHAPTER VI

EVOLUTION AND EXPANSION, 1973-1981

For nearly a decade, the Military Airlift Command had transported thousands of soldiers and countless tons of war material to Southeast Asia to sustain American and South Vietnamese military operations. This had been the command's primary focus. As the Vietnam cease-fire agreement went into effect on 27 January 1973, MAC began a period of transition. Initially, the command supported the withdrawal of military forces and evacuated civilians from Vietnam. These operations required considerable airlift resources and proved the value of airlift's responsiveness. Thereafter, the nine-year period extending from 1973-1981 was characterized by several developments that shaped the course of military airlift well into the command's fiftieth anniversary year. World events such as the Arab-Israeli war, the oil crises, Iranian Revolution, and Soviet intervention in Afghanistan dramatically underscored the need for military airlift to support American diplomatic initiatives or assist, if required, contingency operations. Confirming the evolutionary course of airlift was the Air Force's decision to consolidate all tactical airlift resources under the Military Airlift Command between 1974-1975. Additionally, the command continued its longstanding tradition of transporting food, supplies, and medical equipment during times of natural disasters. Besides demonstrating the United States' good will, these humanitarian airlifts helped many people around the world to overcome devastating circumstances.

END OF SOUTHEAST ASIA OPERATIONS

Following the signing of the Vietnam cease-fire agreement in Paris, the Military Airlift Command, augmented by commercial transports, began withdrawing American and Allied equipment and personnel from Vietnam in a 60-day operation known as COUNTDOWN. One of the first units to return to its home station was Marine Air Group 12, equipped with A-4 aircraft. From 29 January through 2 February 1973, five C-5s and 59 C-141s transported 500 Marines and 1,350 tons of equipment from Bien Hoa Air Base, Vietnam, to Iwakuni Marine Corps Air Station, Japan. COUNTDOWN also included the movement of more than 34,000 Republic of Korea soldiers from South Vietnam. This portion of the operation was conducted entirely by contract aircraft from two civil carriers, World Airways and Airlift International. Beginning on 31 January and ending on 23 March, commercial DC-8s transported the South Korean forces on 162 missions, normally airlifting around 875 troops a day. COUNTDOWN concluded on 29 March 1973. During the last 72 hours of the operation, a total of 10 C-141s and 16 commercial flights brought nearly 4,000 American service personnel to the United States. When the last planeload, a commercial DC-8, lifted off from Saigon with 219 troops, United States military involvement in South Vietnam officially ended.¹

Concurrently, MAC was involved with Operation HOMECOMING, the repatriation and rehabilitation of American and third-country prisoners of war (POW) from Vietnam. HOMECOMING, previously nicknamed EGRESS RECAP, began on 12 February and concluded on 4 April 1973. It was one of the more emotion-filled operations in the history of military airlift, ranking with those POW missions the command had undertaken following World War II and the Korean Conflict. Statistically, however, the airlift was a small one. Over a period of seven weeks, MAC aircrews flew 118 C-9A and C-141 missions, transporting 591² former prisoners to the United States. Of significance, 325 of the POWs were members of the Air Force.

Quite appropriately, Operation HOMECOMING received the highest priority of all Southeast Asia cease-fire requirements. Many of the freed Americans had been held captive in the "Hanoi Hilton," the "Zoo," "Son Tay," "Alcatraz" or one of the other infamous prisons in North Vietnam for as long as seven years. In keeping with the terms of the ceasefire agreement, the North Vietnamese and Viet Cong released the POWs at intervals parallel with the withdrawal of American troops. The Viet Cong freed its prisoners in Saigon, the North Vietnamese in Hanoi.³

On 12 February, MAC flew the first group of POWs to freedom. Participating in the mission were a C-9A, C-130, HC-130, and three aeromedicallyconfigured C-141 aircraft, staged at Clark Air Base, Philippines. The C-130 carried an 18-person reception support team and departed Clark during the night, three hours before the three C-141 Starlifters. The HC-130 served as an orbiting radio platform and left Clark after the C-130. The Starlifters followed; aircraft tail number 60177, assigned to the 63d Military Airlift Wing, had the honor of bringing the first freed prisoners out of Vietnam. Commanded by Major James E. Marrott from the wing's 15th Military Airlift Squadron, this Starlifter arrived at Gia Lam Airport northeast of Hanoi after a two and one-half hour flight. The North Vietnamese then released 116 Americans, waiting in buses.

The Viet Cong turned over another 27 Americans at Loc Ninh; from there UH-1 helicopters took them to Saigon. As the C-141s made their way to Hanoi,



Lieutenant Commander Joseph C. Plumb, US Navy, being escorted to a C-141 at Gia Lam Airport, North Vietnam, for the HOMECOMING flight to Clark Air Base, Philippines.

a C-9A aeromedical aircraft landed at Saigon, picked up 26 of the former POWs, and then flew them to Clark where they joined the other group from Hanoi. A Joint Homecoming Reception Center at Clark provided for their needs before MAC airlifted them to military hospitals in the United States.⁴ Captain Paul A. Cronin, who flew one of the HOMECOMING missions to the states, was quite moved by the experience, and his thoughts reveal how HOMECOMING touched the many involved:

Each man (POW) displayed a spirit and pride in the United States and what it stands for that I have never seen equaled. These men who spent the past six to seven years imprisoned made us all take a long look at our own selves and sent us into some deep soul-searching.⁸

Subsequent HOMECOMING flights followed the precedent set on this first mission. Although

HOMECOMING was a very difficult operation in terms of its emotional demands, it was flawlessly executed and, for many, ranks as the highlight of their Air Force career. For their role in Operation HOMECOMING, the aircrews of the Military Airlift Command received the 1974 Mackay Trophy, awarded by the National Aeronautic Association annually for the most meritorious flight or series of flights by an Air Force organization during the year.⁶

AIRLIFT'S RESPONSE AS CAMBODIA AND SOUTH VIETNAM FELL

Although the Paris Peace Accords had ended the United States' direct military intervention in Southeast Asia, the United States continued to provide massive assistance' to counter North Vietnam's incursions against Cambodia and South Vietnam for the next two years. The United States' military aid, however, did not stem the tide, and the North Vietnamese were on the verge of taking over both countries by spring 1975.



Freed American POWs gave a rousing cheer aboard the C-141 carrying them to freedom.

Prior to the fall of Saigon to the Communist North Vietnamese and Viet Cong in late April 1975, an urgent requirement developed for rapid deployment of combat forces. When the military situation for both the Cambodian and South Vietnamese governments became desperate, the Joint Chiefs of Staff directed MAC to airlift a precautionary force of more than 1,400 United States Marines and 1,500 tons of supplies from Hawaii to Okinawa and then later to the Philippines. The Marines would rescue Americans and other foreign nationals from Saigon according to a contingency plan called FREQUENT WIND and from Phnom Penh, Cambodia, by Operation EAGLE PULL.⁴ Portions of these plans were executed on several occasions in the weeks and months ahead.

Additionally, supporting South Vietnam's efforts to defend Saigon, MAC airlifted emergency combat supplies. During the first week in April 1975, the command operated 17 C-141s, 4 C-5s, and 7 commercial aircraft to Tan Son Nhut Air Base, South Vietnam, from various supply depots in the United States. Included among the equipment were 105mm howitzers, rocket launchers, M-16 rifles, tank engines, and individual combat equipment. These shipments replaced what the South Vietnamese forces had lost or abandoned defending Saigon.⁹

United States government officials in Saigon could readily see that South Vietnam's capital would soon fall to the Communists. With enemy forces probing key positions near Saigon, American civilians still in Vietnam, numerous highly placed South Vietnamese, and other third country nationals were in serious danger. Their hasty airlift to safety at United States bases in the Pacific was urgently required. The large-scale evacuation of supporters of the South Vietnam government was nicknamed NEW LIFE.¹⁰ It commenced on 4 April 1975, concurrently with Operation BABYLIFT, the evacuation of Vietnamese orphans from Saigon. As the demands of the orphan airlift diminished, there arose a new crisis. The number of refugees desperately wanting to leave Saigon and Phnom Penh had escalated. Airlifting refugees from South Vietnam's capital began slowly while the details were being developed for a massive evacuation of Vietnamese, according to guidance prescribed in the FREQUENT WIND" contingency plan. At first the number of United States personnel flying out of Saigon had been held to 200-300 per day so as not



To expedite the evacuation of refugees processed at Saigon, Vietnamese were floor loaded on aircraft. Here in a C-141.



After evacuation from Vietnam by C-130s, these Americans and Vietnamese awaited further transportation to interim safe havens in the Pacific or to the United States.

to alarm the local population. But, the potential number of evacuees soon exceeded 73,000; among this group were 5,422 Americans.¹² A massive airlift was needed.

As the Communists closed in on Saigon in April 1975, the tempo of MAC's final Southeast Asian airlift accelerated. Five C-141s departed Clark daily for Salgon. To provide for a continuous evacuation, C-130s, under the operational control of the Pacific Command, also conducted evacuation flights beginning on 23 April. From this date through 30 April when Saigon fell, the C-130s flew an average of 7.25 missions daily. People hastily boarded the C-130s as the aircraft engines remained running. The C-130s and C-141s took the evacuees to Clark and Cubi Point Naval Air Station in the Philippines, to Andersen Air Force Base and Agana International Airport on Guam, and to Wake Island. The airlift portion of NEW LIFE reached its apex on 25-26 April when MAC's C-141s evacuated 3,500 refugees during the two-day period.13

By the time Saigon fell to the Communists on 30 April, MAC's airlift forces had evacuated 50,493

Vietnamese and Cambodians to staging areas in the Pacific. NEW LIFE required 375 missions: 201 C-141, 174 C-130, and a single World Airways contract flight. Airlift, of course, was not the only means by which Vietnamese and Cambodian refugees escaped from South Vietnam. More than 73,400 other Vietnamese were fleeing Saigon on merchant ships, sampans, and other vessels of assorted description. United States Navy ships patrolling the open sea rescued many of the "boat people," as they came to be called, and took them to Subic Bay, Philippines. Eventually, 31,155 boat people made it to Subic Bay, whereupon C-141s and C-130s airlifted them to other locations in the Pacific between 29 April and 9 May 1975, C-130s flew 135 missions while the C-141s handled sixty-one.

Another aspect of the evacuation operation drew upon airlift to move large quantities of food, supplies, construction materials, and support personnel to the reception centers. During the three-month period that extended from April through June 1975, MAC aircraft flew 414 missions, transporting 8,556 tons of supplies and 5,469 passengers to include specialists

OPERATION BABYLIFT

With the Communist takeover of Cambodia and South Vietnam imminent, President Gerald R. Ford ordered an evacuation of Vietnamese orphans from Saigon to the United States. At a press conference in San Diego on 3 April 1975, President Ford explained his plan of action:

> I have directed... that C-5A aircraft and other aircraft especially equipped to care for these orphans during the flight be sent to Saigon. I expect these flights to begin within the next 36 to 48 hours. These orphans will be flown to Travis Air Force Base in California, and other bases on the West Coast, and cared for in those locations.

President Ford's announcement set in motion the dramatic humanitarian airlift known as

Operation BABYLIFT, which evacuated several hundred Vietnamese orphans from Saigon to adoptive families in the United States. BABYLIFT began on 4 April 1975, when a C-5 Galaxy on its way to Clark Air Base in the Philippines was diverted to Tan Son Nhut Air Base near Saigon to fly the first BABYLIFT mission. Shortly after the Galaxy's cargo had been unloaded, the huge aircraft took off for Clark with 314 Vietnamese orphans aboard.

But this first BABYLIFT mission was marred by tragedy. Fourteen minutes after takeoff, a massive decompression critically damaged the aircraft's flight controls, blowing out the cargo doors and ramp just to the rear of the passenger area. Valiantly attempting to return the C-5 to Tan Son Nhut, Captain Dennis W. Traynor III, the aircraft commander, crash-landed the C-5 in a rice field a few miles short of Tan Son Nhut's runway. One



Operation BABYLIFT. Volunteers carried the orphans aboard a C-141, Hickam Air Force Base, Hawaii.

hundred thirty-eight adults, children, and babies perished, but 176 survived.

General P. K. Carlton, Commander of MAC, called Captain Traynor's courageous landing "one of the greatest displays of airmanship I have ever heard related." Assisting Captain Traynor throughout the ordeal were 28 other crewmembers who worked calmly and efficiently to attend the passengers, assess damage, and perform the many tasks critical to landing the aircraft. For extraordinary heroism, Captain Traynor and his copilot, Captain Tilford W. Harp, received the Air Force Cross, the service's highest military decoration. Awards to other crewmembers included six Distinguished Flying Crosses and 29 Airman's Medals. Captain Regina C. Aune, a flight nurse, received the 1975 Cheney Award for placing the lives of the surviving orphans and other crash victims above her own serious injuries.



Checking a newly arrived orphan at Travis Air Force Base, California.

Although BABYLIFT had begun on a tragic note, the operation quickly evolved into an extremely smooth and safe airlift and received internationally much favorable publicity. By noon the next day, five MAC C-141s and several C-9s under the operational control of the Pacific Air Forces had moved another 141 orphans and 137 escorts from Saigon to Clark. For the remainder of April 1975, MAC operated aircraft to support BABYLIFT at a steady pace. From Saigon, the orphans and escorts were taken to Andersen Air Force Base, Guam; Clark Air Base; and Hickam Air Force Base, Hawaii. At each of these Pacific locations medical and support personnel, along with many volunteers, cared for the orphans and prepared them for subsequent airlift to adoption centers on the west coast of the United States.

Shortly after the evacuation of the Vietnamese orphans began, Air Force Chief of Staff, General David C. Jones, directed MAC to evacuate a much smaller number of orphans from Cambodia. The command contracted this assignment. Operating C-130s, Bird Air, a privately owned company, airlifted a total of 52 orphans from Cambodia's capital to U-Tapao Air Base, Thailand. The first group of orphans arrived at U-Tapao on 9 April. Another group of Cambodian orphans was flown to U-Tapao by an aircraft that MAC chartered from the World Vision Relief Organization. Also on 9 April a C-141 took the 52 orphans from U-Tapao to Clark.

Between 6 April and 6 May 1975, MAC and contract carriers airlifted 1,794 Southeast Asian orphans to their new American families in the United States. The C-141s transported 949 orphans in 24 missions, while commercial carriers airlifted another 845 orphans in four missions. The aircraft transporting the orphans landed in San Francisco, Oakland, Los Angeles, Long Beach, Los Alamitos Naval Air Station, El Toro Marine Corps Air Station in California, and at McChord Air Force Base, Washington. On 12 April a World Airways 747 took 329 Vietnamese children to Los Angeles. These children made up the largest group of orphans airlifted on a single mission. The Department of State terminated the orphan airlift on 9 May 1975, ending an operation that had exemplified the finest tradition of American kindness and generosity.

SOURCES: History of the Military Airlift Command, 1 July 1974-31 December 1975 (Scott AFB, IL: Office of MAC History, 1976), pp xvl, 204; C. Cross, MAC and Operation BABYLIFT: Air Transport in Support of Noncombatant Evacuation Operations (Scott AFB, IL: Office of MAC History, 1989), pp 10, 11, 33-39; chronology, Office of MAC History, 'Operation Bebylift, 3 Apr-13 May 75,'' 15 December 1975; report, Headqueriers MAC, Deputy Chief of Staff for Operations, ''Background Southeast Asia Evacuation,'' n.d. such as bakers, cooks, doctors, nurses, and engineers.¹⁴

The next phase of the NEW LIFE evacuation— Operation NEW ARRIVALS—required MAC to transport the evacuees from the Pacific reception points to resettlement centers in the United States. The Department of Defense established centers at Camp Pendleton, California; Fort Chaffee, Arkansas; Eglin Air Force Base, Florida; and Fort Indiantown Gap, Pennsylvania. The command's C-141s, augmented by commercial aircraft, took the refugees to airfields near these locations. The first planeload of refugees arrived at Camp Pendleton, through the El Toro Marine Corps Air Station, on 29 April 1975. The final mission reached the United States on 16 September 1975. In summary, NEW ARRIVAL brought 121,562 refugees to America on 600 missions: 251 C-141 and 349



Besides airlifting refugees to the United States, contract carriers also transported refugees from Clark Air Base to other safe havens in the Pacific.

commercial. Clearly, the commercial carriers had played a vital role in the NEW LIFE-NEW ARRIVAL airlift operations.¹⁸

As NEW ARRIVAL was underway, MAC received an urgent airlift request to support a Quick Reaction Force. On 12 May 1975, in the Gulf of Siam more than 30 miles off the southern coast of Cambodia, Khmer Rouge Communists seized an American merchant ship, the USS Mayaguez, holding 39 crewmembers hostage. Headquarters MAC received a verbal alert order to stand by to move a contingent of United States Marines from the Third Marine Division in the Philippines first to Kadena Air Base, Japan, and then on to U-Tapao Air Base, Thailand. Within seven hours after receiving the alert order, a C-141 had departed Cubi Point for its destinations. Fifteen other C-141 missions guickly followed, and within a 22-hour period, MAC airlifted 1,165 Marines and 121 tons of combat equipment from Kadena and Cubi Point to U-Tapao. Helicopters, from both the Military Airlift Command and the Pacific Air Forces, Inserted the Quick Reaction Force which rescued the USS Mayaguez crew. When the force returned to U-Tapao, political considerations necessitated the immediate removal of the Marines from Thailand. The Military Airlift Command completed the redeployment of the Marines within 37 hours, using 1 C-5 and 13 C-141 missions.10

The quick succession of events between April and May 1975 had drawn heavily upon military airlift, thoroughly testing its responsiveness and capabilities. As the Military Airlift Command surged to meet its tasking, it also had to rely upon the commercial airlines for substantial assistance. These final Southeast Asia operations confirmed once again that the United States needed to maintain a war-ready military airlift system. The Israeli Airlift in 1973 had underscored this lesson as well.

AIRLIFT TO ISRAEL: NICKEL GRASS

Just as the United States was ending its massive involvement in Vietnam and reducing its force structure, the Military Airlift Command was called upon to conduct a major wartime airlift in support of Israel. On 6 October 1973, the day of Yom Kippurthe Jewish Day of Atonement-Egypt and Syria simultaneously attacked Israel, in violation of the tenuous cease-fire that had existed between the three countries since the 1967 Arab-Israeli war. Desperately engaged in a two-front war, Israel quickly pressed all of its own commercial alrcraft into service to ferry replacement war material from the United States, but these resources were inadequate to transport the large amount of cargo needed, especially over- and outsized cargo. Intensifying the crisis, the Soviet Union began airlifting resupplies to Egypt and Syria on 10 October.17



In response to an urgent request from Israeli Prime Minister Golda Meir, President Richard M. Nixon initiated an aerial resupply operation to Israel on 13 October. After considering several options,18 administration officials had elected to use only military aircraft and resources, and the airlift commenced on 13 October, the same day President Nixon directed it. Nicknamed NICKEL GRASS, the Israeli Airlift soon proved the value of maintaining a responsive and efficient military airlift system. For the next 32 days, MAC C-141 and C-5 cargo transports streamed steadily to Lod International Airport, Tel Aviv, Israel, from multiple onload points¹⁸ in the continental United States, carrying urgently needed war materials. The aerial resupply was conducted with an en route stop at Lajes Air Base, Azores, over a one-way average distance of 6,450 nautical miles. Given the diplomatic sensitivities associated with so much of the world's dependence on Arab oil, the C-5 and C-141 flight routes over the Mediterranean carefully avoided the airspace of any nation in the region.20

Only nine hours after President Nixon had made the decision to resupply Israel, the command's C-141s

and C-5s were airborne, en route to Israel. The first NICKEL GRASS mission was completed when a C-5 landed at Lod International Airport at 2001Z on 14 October with 186,200 pounds of cargo. To expedite the unloading operations of all MAC aircraft arriving at Lod, another C-5 had been dispatched to Israel with materials handling equipment and aerial port personnel. Unfortunately, it was forced to abort into Lajes for maintenance. As a result, the cargo aboard the first C-5 was unloaded manually by Israelis and MAC crewmembers. The command's airlift planners scheduled the flights into Lod at the rate of 4 C-5 and 12 C-141 missions daily. The airlift flow peaked on 21 October with the arrival of 6 C-5s and 12 C-141s. Nine days later, 30 October 1973, the intensity of the airlift slackened a bit as sealift began to take over the bulk of the resupply operation.²¹

From the arrival of the first mission on 14 October through the landing at Lod International Airport of the last aircraft on 14 November 1973, MAC's combined force of C-5s and C-141s airlifted 22,318 tons of material to Israel. The delivery was completed in 567 missions and 18,414 hours of flying time. In 145



Lajes Field in the Azores was the major en route station and the key to the Israeli Airlift resupply operation.

missions, the C-5s carried a little less than half of the tonnage delivered; the C-141s moved 10,754 tons on 422 missions. 22

By the time a cease-fire was in place on 2 November 1973, MAC's Israeli operation had outperformed the Soviet effort to resupply Egypt and Syria. The Soviet Air Force had used AN-12 and AN-22 transport aircraft to haul 15,000 tons on 935 missions. What made MAC's performance all the more noteworthy was that C-5s and C-141s had covered a one-way average distance of 6,450 nautical miles compared with an average distance of 1,700 nautical miles flown by the Soviet transports.²³

Contributing so significantly to the success of the Israeli Airlift was the C-5 *Galaxy*, which carried an average of 73 tons to the C-141 *Starlifter's* 28 tons. Additionally, the C-5 transported outsized cargo which, for NICKEL GRASS, included 155mm howitzers, 175mm cannons, M-60 and M-48 battle tanks, CH-53 helicopters, and A-4 aircraft fuselages. No other USAF aircraft had that capability. NICKEL GRASS further constituted the first real test of the C-5 under wartime conditions. It was striking testimony to the performance of the Air Force's largest aircraft that while it flew only 25 percent of the NICKEL GRASS missions, the C-5 airlifted nearly 50 percent of the tonnage. The C-5s, moreover, consumed 24 percent less fuel than the C-141s during the entire operation.²⁴

While the Israeli Airlift confirmed the importance of maintaining basing facilities at Lajes, it also renewed interest in developing the C-5's aerial refueling capability to its fullest extent as well as incorporating this feature on all C-141s. Had the Portuguese not made Lajes available, and with Germany, Spain, Greece, and Turkey refusing aircraft clearances, MAC would have been hard pressed to execute NICKEL GRASS. Aerial refueling would address this situation, assuring the United States' ability to project its military forces in future crises. The airlift also pointed out the need to improve ground handling equipment and procedures. In addition, the crisis disclosed a requirement for cargo convertible aircraft in the Civil Reserve Air Fleet. The airlift also showed that the command and the Tactical Air Command lacked procedures whereby tactical C-130s could augment the MAC system during emergencies. Overcoming these difficulties, the Military Airlift Command completed the entire NICKEL GRASS operation without reducing the command's other



Offloading two CH-53 Super Jolly Green Giant helicopters at Lod Airport. Helicopters, 175mm field artillery cannons, 155mm howitzers, M-48 and M-60 tanks were some of the largest pleces of equipment that the C-5 Galaxy carried.



Outsized cargo being moved from the belly of a C-5 onto the train of a 40-K loader at Lod.



Concurrently, between 3 November and 30 December 1973, MAC completed 677 sorties supporting Operation NIGHT REACH. In all, MAC aircrews and two contract carrier DC-8s transported over 1,800 soldiers and 1,300 tons of equipment to Cairo and Tel Aviv to sustain peacekeeping forces in the field.

worldwide requirements, without activating the Civil Reserve Air Fleet, and without mobilizing any of its Air Force Reserve units.²⁵

FALLOUT OF SOUTHEAST ASIA AND ISRAELI AIRLIFT

The Middle East crisis vividly confirmed the strategic airlift forces' need for increased inflight refueling and expanded airlift capability. During the Israeli Airlift, the C-141 was not equipped for aerial refueling. Although the C-5 had this capability, it was not used. General Carlton had sought permission for aerial refuelings, but his proposal was/ rejected because of MAC's limited capability. The refusal was based upon political considerations as well. Did the United States need to maintain Lajes, if MAC aircraft performed their missions without having to use the Portuguese base? The United States government believed it did and did not wish to raise this issue.

Had the Portuguese government not been persuaded to allow Lajes to serve as an en route refueling stop, the C-5s would have been restricted



Colonel Donald R. Strobaugh, the MAC ALCE Commander at Lod, gave Israeli Prime Minister Golda Meir a briefing on airlift control element operations.

to 33.5 versus 73 tons per trip, and the C-141s would have been unable to carry a worthwhile load. With aerial refueling, both aircraft would have been able to lift their maximum loads, thereby reducing the number of missions flown. But at the time of the airlift, the C-5 had never undergone aerial refueling in an operational environment, and few pilots were qualified in this procedure. If C-5 aerial refueling had been used on the Israeli missions, MAC could have decreased its C-141 missions by 57, C-5s by 44. This would have reduced the quantity of fuel expended by 48.5 million pounds or 25 percent. Frequently citing these dramatic statistics, General Carlton worked to make aerial refueling a normal operational procedure for MAC's strategic transports. He emphasized to Pentagon planners the benefits for strategic airlift inherent in aerial refueling, notably a more rapid worldwide response capability, heavier cargoes, shorter closure times, and a reduced requirement for overseas base support.²⁶ Terrorism and the uncertainty of obtaining aircraft clearances for sensitive operations further bolstered arguments for aerial refueling.

On 3 November 1973, even as the Israeli Airlift was in progress, MAC sent Headquarters USAF a proposal for training seven instructor crews at the 443d Military Airlift Wing at Altus Air Force Base, Oklahoma, MAC's C-5 training wing. The seven crews would give the command the nucleus of expertise needed to provide a limited aerial refueling capability for its two C-5 operational wings. This cadre would be available for special missions and could train other aircrews in aerial refueling techniques in the event of prolonged contingencies or other special requirements. In late November 1973, however, MAC asked for approval to train one additional air refueling crew for each assigned aircraft. This action would produce approximately 70 aerial refueling qualified crews over and above the seven-crew cadre the command had originally requested. In Headquarters MAC's view, having 77 C-5 crews qualified in aerial refueling techniques would give the command an immediate and sustained response to contingency situations.27

Seeing the logic of MAC's second proposal, Secretary of the Air Force John L. McLucas approved the request, and MAC developed a program to train the C-5 aircrews in aerial refueling. On 1 May 1974, a C-5 was refueled for the first time in an operational environment by a Strategic Air Command KC-135 tanker. And on 30 August 1974, MAC completed its first overwater long-range, air-refueled C-5 mission from Dover Air Force Base, Delaware, to Clark Air Base. The mission, nicknamed COLD JUICE I, covered a distance of 10,060 statute miles and was completed in 21 hours, 30 minutes, over the command's mid-Pacific route. The C-5 carried 99,683 pounds of cargo and received 44,200 gallons of fuel while airborne. The aerial refuelings negated the need for three landings and saved about 20 hours. The command conducted seven more COLD JUICE operational capability test and demonstration flights. The final mission, which prompted the development and validation of cell air refueling procedures and techniques for the strategic airlift force, was completed in January 1975.20



A KC-10A refueling a C-5A Galaxy during FAA certification tests, 1980.

Besides pushing the development of an aerial refueling capability, the Israell Airlift had also highlighted the need to acquire more airlift capacity. To address this requirement, MAC had two initiatives: "stretching" the C-141 and expanding the Civil Reserve Air Fleet. Lengthening or stretching the fuselage of the versatile C-141 by 23 feet, 4 inches, would increase the interior by approximately 30 percent and enable the Starlifter to carry 13 rather than 10 standard pallets. Studies had shown that space rather than tonnage was the limiting factor, for the C-141, as originally designed, was capable of lifting more cargo. The stretch modification was made by inserting a 13-foot, 4-inch, section in front of the wing and a 10-foot section behind the wing. Lengthening the fuselage expanded the Starlifter's cargo capacity by roughly one-third through the addition of an extra 237 square feet of floor space. This increased the aircraft's cargo capacity by the equivalent of 2,171 cubic feet. Also included in the stretch modification work was an inflight refueling

receptacle. This gave the C-141 an aerial refueling capability for the first time and greatly improved the command's airlift deployment options. When fitted with a universal refueling receptacle that was compatible with the Strategic Air Command's tankers, the C-141's aerial refueling transfer rate was roughly 900 gallons per minute; only 30 minutes were needed to fill the stretched C-141 to its maximum capacity of 24,500 gallons. According to General Carlton, the "increase in cargo space would boost MAC's C-141 airlift capacity by thirty percent with no appreciable impact on range or cruise speed." Secretary of Defense James R. Schlesinger put it another way: "stretching all MAC's C-141s [was] tantamount to adding ninety standard C-141s to the airlift force."²⁹

The Lockheed Georgia Company, the C-141's primary contractor, performed the stretch process. Two-hundred and seventy C-141As received this major modification, which the Air Force recognized as the most cost effective way to increase MAC's airlift capability. The cost of the entire project was nearly

\$500 million, and each of the modified aircraft became known as the C-141B. The prototype model, YC-141B, rolled out of the Lockheed Plant at Marietta, Georgia, on 8 January 1977. One month later, the Office of the Secretary of Defense authorized the Air Force to begin production contract negotiations with Lockheed. The YC-141B completed its first series of flight tests successfully on 25 March, four weeks ahead of schedule. The entire prototype program was finished in September 1977, again ahead of schedule and approximately \$4 million below the target cost of \$41.5 million. The Military Airlift Command received the first production version of the stretched C-141B with its lengthened fuselage and aerial refueling capability on 4 December 1979.³⁰

The first operational mission took place on 6 April 1980, when tail number 67007, assigned to the 443d Military Airlift Wing, flew nonstop from Beale Air Force Base, California, to Royal Air Force Mildenhall, United Kingdom, in 11 hours, 12 minutes, with one air refueling from a Strategic Air Command KC-135 over the Great Lakes. By December 1980, a total of 82 C-141Bs had entered the MAC inventory. Two years later, Lockheed-Georgia had modified 215 C-141As into "B" models and had another 28 at its Marletta plant in various stages of work. The Military Airlift Command sent its last C-141A to Lockheed in April 1982, marking the end of an era for the workhorse of the command's organic fleet and signifying the dawn of a new period characterized by still greater airlift capability and flexibility. On 29 June 1982, Lockheed-Georgia delivered the last of the stretched *Starlifters* to the Military Airlift Command, concluding one of the most successful aircraft modification programs in Air Force history.³¹

The cost of the C-141 stretch program was much lower than purchasing additional airlifters. Between 1978 when the program began and mid-1982 when the last C-141B was delivered to MAC, Lockheed-Georgia charged the Air Force \$489.6 million for the entire stretch modification. The amount constituted \$37.5 million for developing a prototype and \$452.1 million for modifying the entire inventory. This sum equated to \$1.81 million for each C-141B. The total cost of the program naturally pleased Air Force officials; \$489.6 million was an impressive \$193.3 million below Lockheed's June 1978 contract modification estimate.³²

The Military Airlift Command also sought to acquire more airlift capacity for the strategic airlift



With a C-141A in the background, the "stretched" C-141 prototype was rolled out of the Lockheed-Georgia plant on 8 January 1977.

forces by making greater use of the wide-bodied, longrange civil jetliners included in the Civil Reserve Air Fleet. In 1975, the Civil Reserve Air Fleet was responsible for about half of the United States' strategic airlift capability in wartime and was capable of furnishing 17,000,000 cargo ton-miles and 7,500,000 passenger ton-miles a day. By comparison, the Military Airlift Command's organic aircraft could generate 12,500,000 ton-miles daily with the Guard and Reserve fleets providing another 8,000,000 tonmiles per day.³³



Positioning the C-141 Starlifter to a refueling boom of a jet tanker.

Although the Civil Reserve Air Fleet had never been activated to support military operations, the nation's civil air carriers had always made sufficient commercial airlift available voluntarily in times of emergency, such as during the Korean and Vietnam Conflicts. During the Israeli Airlift, the commercial carriers, although reluctant to fly to Israel, backfilled for the military aircraft on the scheduled routes.³⁴ Hence, the command would work with the Civil Reserve Air Fleet carriers to ensure that more cargocapable aircraft would be available in crises. This initiative eventually resulted in the enhancement program, implemented in 1981.

Another major part of MAC's program to improve strategic mobility was to modify the wings of the C-5s so that this aircraft could reach its designed service life of 30,000 hours. Soon after the Lockheed Aircraft Corporation had delivered the first operational C-5 to the 437th Military Airlift Wing on 6 June 1970, command maintenance specialists discovered structural deficiencies in the aircraft's wings of such a severity as to limit the *Galaxy*'s service life to only 8,000 flying hours. Additionally, payloads had to be kept well below what the contractor had advertised. To overcome this limitation, MAC logistics experts recommended a large-scale wing modification program enabling the C-5 to routinely carry peacetime cargo of 197,000 pounds for 30,000 hours, the equivalent of a 30-year active service life for each aircraft.³⁶

Following several years of planning and development, the wing modification program began in 1979 when the Lockheed-Georgia Company received the first C-5, tail number 68214. The aircraft underwent a 16-month modification program to rebuild the entire wing structure. Lockheed returned this aircraft to the 436th Military Airlift Wing on 16 January 1981. For the remainder of the year, MAC flew the modified C-5 for over three hours daily, the equivalent of nearly 1,000 flying hours. The evaluation confirmed that the new wing worked well and was capable of supporting payloads as designed.³⁶

As the 436th Military Airlift Wing conducted its flight tests and Lockheed performed its own fatigue evaluations, Headquarters MAC developed a program to modify the remaining 77 C-5 aircraft. Eleven to 14 months were needed to re-wing each aircraft. By the end of 1985, 62 C-5As had been fitted with the new wings. Accordingly, in December 1985, Major General William E. Overacker, MAC Deputy Chief of Staff for Operations, concluded that the C-5A wing modifications had reached the point where the aircraft had "sufficient flying capability to meet contingency plans." Eighteen C-5As underwent wing modification in 1986, the last seven in 1987.³⁷

AIRLIFT CONSOLIDATION AND SPECIFIED COMMAND STATUS

Southeast Asia military operations, the Israeli Airlift, and the arrival of the multi-purpose C-141 Starlifter renewed interest in consolidating and assigning all strategic and tactical airlift forces to the Military Airlift Command. The issue had first surfaced in World War II. In 1948, the Department of Defense attempted to eliminate duplicative air transport functions when it combined most of the assets of the Navy's Naval Air Transport Service and the Air Force's Air Transport Command into a single Air Force organization. The newly created organization was the Military Air Transport Service, whose commander was accountable directly to the United States Air Force Chief of Staff. But in keeping with the traditional Army and Air Force doctrinal divisions, as well as the limitations of aircraft, the Air Force had continued to separate its airlift forces according to whether they served intra- or intertheater needs or a specific function like airlift for the logistics depots.

The next step toward airlift consolidation came eight years later when MATS became the Defense Department's "single manager for airlift service." At this time, MATS took over all scheduled point-to-point airlift operations and gained a portion of the heavy or

ADVANCED MEDIUM STOL TRANSPORT

In addition to the C-141 stretch and C-5 wing modification programs, the Military Airlift Command also worked during the 1970s to enhance its short take-off and landing (STOL). tactical airlift capabilities. The turbo-prop C-130 Hercules, built by the Lockheed Aircraft Corporation and used for United States military airlift since 1958, performed MAC's tactical airlift mission. After the consolidation of strategic and tactical airlift, the Military Airlift Command had approximately 285 C-130s, augmented by a smaller aging fleet of C-7s and C-123s assigned to the Air Reserve Component. Studies following Vietnam had shown, however, that this aging fleet was inadequate to meet all of the Army's tactical airlift requirements. Additionally, the C-130s, which made up the backbone of MAC's tactical airlift fleet, would be between 20 and 30 years old by 1985. The C-7 and C-123 possessed better STOL capabilities than the C-130, but their short range and relatively small cargo-carrying capability limited their effectiveness. These aircraft were getting older as well. In 1983, the mean ages of the C-7 and C-123 were projected as 21 and 27 years, respectively.



The McDonnell Douglas YC-15 AMST prototype on its maiden flight, 26 August 1975.

To remedy the shortage of short take-off and landing aircraft, the Air Force contracted for both Boeing and McDonnell-Douglas to build a prototype of an air-refuelable Advanced Medium STOL Transport (AMST) larger than the C-130 and an aircraft, which in the words of General Carlton, was "really a miniature C-5." Transporting outsized cargo in-theater was the mission that General Carlton and other senior Air Force officials envisioned for the AMST.

Boeing and McDonnell Douglas were awarded contracts in November 1972 to build the two AMST prototypes. Each prototype was to demonstrate the feasibility of a powered lift medium STOL aircraft with a wide-body fuselage and the ability to carry a 27,000-pound payload on a 400 nautical mile radius mission into and out of a 2,000-foot unimproved landing zone. The prototypes were also to exhibit the ability to cruise at 400 knots at or above 30,000 feet on a 2,600 nautical mile mission. The prototype program ended successfully in early August 1977; the four AMST aircraft had logged 1,397 test hours.



The Boeing YC-14 AMST being to wed into position for roll-out ceremonies.

Comparing the prototypes with the C-130H, the newest C-130 variant, the AMST had a cargo compartment that was 68 percent greater. The Boeing and McDonnell Douglas models could deliver a 95 percent larger STOL payload and required about half the field length during landing and take-off as the C-130. But, fiscal constraints prevented the AMST from proceeding beyond the technological demonstration phase, and the Secretary of Defense dropped the program from the military budget in December 1977.

SOURCES: History of the Military Airlift Command, 1 July 1974-31 December 1975 (Scott AFB, IL: Office of MAC History, 1976), p 333; History of the Military Airlift Command, 1 January-31 December 1977 (Scott AFB, IL: Office of MAC History, 1978), p 247; E. Ulsemer, "New Look in USAF's Strategic Airlift," Air Force Magazine, February 1975, p 26. long-distance troop carrier aircraft. As various crises throughout the late 1950s and early 1960s drew upon MATS to provide rapid airlift, the command evolved from an air transport service into a full-fledged combat-oriented airlift command. Recognizing this change, Congress directed that MATS be redesignated the Military Airlift Command, effective January 1966. At this time, the Navy withdrew its remaining personnel from MAC and completed transferring all of its C-130s to the Air Force by mid-1967. Officially, MAC was the Defense Department's single manager for "strategic" airlift while the Tactical Air Command and the overseas commands were vested with responsibility for "tactical" airlift missions to include most airdrop operations. Joint service exercises, however, as early as 1950 had confirmed that the strategic and tactical airlift missions could be combined into a single command, but opposition within the Army and Air Force had prevented the merger.36

During the Vietnam War, the Air Force systematically gathered information about air operations to facilitate the formation of future doctrine pertaining to all aspects of air power. Through this large-scale analytical process, known as Project CORONA HARVEST, the Air Force hoped to unearth and incorporate the many lessons of Vietnam. One CORONA HARVEST report, USAF Airlift Activities in Support of Operations in Southeast, suggested that although the separate organizational structures adopted by the strategic and tactical airlift forces had allowed each generic airlift component to adapt to a variety of tasks, the mission statements of each overlapped and were often vague about the responsibilities of command and control. The document concluded that "extensive parallelism" in the basic functions of strategic and tactical airlift operations "detracted from efficiency and tended to complicate" the total airlift mission. In the post-Vietnam era, this conclusion coincided with the refusal of Congress and the American public to support a large military establishment. Thus, the report's assurance that consolidation would provide an "economical airlift force with considerable savings in manpower and equipment" offered one logical means for surviving reduced congressional appropriations.39

NICKEL GRASS had highlighted still further the difficulty of directing airlift through several commands, confirming the need for a single airlift manager. During NICKEL GRASS, C-130s assigned to the Tactical Air Command had augmented the C-5s and C-141s in transporting war material to Israel. The C-130s carried small but critical loads from European locations, freeing the larger transports for the long Middle East flights. But a considerable period of time had elapsed before the two commands were able to coordinate the C-130 augmentation. In contrast, MAC

and the Pacific Air Forces had an agreement in place that established procedures for MAC augmentation of PACAF intratheater alrlift, but the Tactical Air Command had made no arrangement for its tactical airlift forces to augment MAC. Nearly 48 hours had lapsed from when MAC began exploring the use of C-130 augmentation until the first Tactical Air Command missions began. This split-command arrangement had made it difficult to mobilize the nation's entire airlift resources rapidly in a time of grave crisis.⁴⁰

It was against this background that the CORONA HARVEST recommendation to consolidate airlift under a single manager received a favorable response within the Defense Department. Defense planners were already streamlining the nation's military establishment for greater efficiency following Vietnam demobilizations. The impetus toward consolidation began when the Navy requested funds to modernize its aging fleet of air transports. While the Defense Department's Program Analysis and Evaluation staff had simply rejected the request, the Office of the Secretary of Defense, under the direction of James R. Schlesinger, took the issue a step further. On 29 July 1974, Secretary Schlesinger issued a program decision memorandum that proposed sweeping changes for the United States airlift forces. Explaining the memorandum as part of a larger effort to promote interdependence among the military services, Schlesinger directed the Air Force to consolidate all military airlift forces under a single manager by the end of fiscal year 1977. Henceforth, the Air Force would provide airlift for all of the armed services, including the Navy and Marine Corps.⁴¹

A month later, on 29 August 1974, Air Force Chief of Staff General David C. Jones announced that military airlift would be consolidated under the Military Airlift Command. He gave the following rationale:

To achieve better integration of overall airlift, strategic and tactical airlift assets will be consolidated under MAC All Air Force tactical airlift C-130 aircraft and associated support in TAC, AAC [Alaskan Air Command], USAFSO [United States Air Forces Southern Command], USAFE [United States Air Forces in Europe], and PACAF [Pacific Air Forces] will be transferred to MAC.⁴²

The first step toward implementing this consolidation took place on 1 December 1974, when the Tactical Air Command transferred all of its tactical airlift units in the continental United States, including the Air National Guard and Air Force Reserve, to the Military Airlift Command. The Tactical Air Command also gave MAC the host responsibilities for Pope Air Force Base, North Carolina, and Little Rock Air Force Base,



BRAVE SHIELD XVI. A MAC C-130 Hercules executing a tactical airdrop, July 1977.



TEAM SPIRIT 77. A MAC C-130 picking up Republic of Korea troops at Kunsan Air Base, Korea.

Arkansas. Both of these bases had tactical airlift organizations assigned. Acquiring the Air Force's tactical airlift resources transformed MAC into the world's largest single airlift organization and added approximately 230 active duty C-130 aircraft and 14,000 personnel to the command's resources. Also incorporated into MAC at this time were 25,000 Air National Guardsmen and Reservists along with some 330 C-130, C-7, and C-123 aircraft. The overseas commands transferred their tactical airlift units to the Military Airlift Command on 31 March 1975. At this time, MAC assumed worldwide responsibilities for aeromedical evacuation, delegating this to the 375th Aeromedical Airlift Wing.⁴³

Consolidating tactical and strategic airlift under a single manager produced many benefits. For example, it eliminated redundant logistical support, reduced overlap in routes, and ensured more efficient operation of the military aerial ports that supported the nation's military airlift system.⁴⁴ General P. K. Carlton, MAC Commander at the time of the consolidation, summarized the significance of the action when he said that "putting all airlift under MAC cuts down on management and data automation overhead and streamlines airlift operations from start to finish."⁴⁵

Consolidation also renewed interest in another lingering issue: whether MAC should become a specified command directly accountable to the Joint Chiefs of Staff or whether it should remain the single manager operating agency for airlift directly responsible to the Secretary of the Air Force. Granting specified command status would make the Military Airlift Command, along with the Strategic Air Command and Air Defense Command, the United States Air Force's third specified command.

The Military Airlift Command's role in the Southeast Asia Conflict and the Israeli Airlift had shown the incongruities existing in the present organizational structure of the United States' military airlift resources. During NICKEL GRASS, for example, a variety of higher headquarters staff agencies notably the Joint Chiefs of Staff, Headquarters USAF, and the United States Readiness Command—had submitted their own airlift requirements to MAC. These multi-user requests had caused confusion, delays, and duplication. During Southeast Asia, airlift management and scheduling had often been fragmented and inefficient. These problems were well documented in several studies in the early 1970s.⁴⁶

In 1974, as the arguments in favor of airlift consolidation gained momentum, the question of whether to designate the Military Airlift Command a specified command received strong support from Defense Secretary Schlesinger and General George S. Brown, the Air Force Chief of Staff. Brown's influence on the issue increased when he subsequently became the Chairman of the Joint Chiefs of Staff on 1 July

1974. General Brown favored specified command status in part because of the role military airlift performed in achieving national policy objectives. He also thought that combining the strategic and tactical airlift missions into a single agency had elevated the importance of airlift in the planning of combat operations, thereby justifying specified command status for MAC. Specified command status would also make the MAC commander responsible to the same command authority that established the airlift priorities of the other combat commands. It would simplify and improve command relationships. Specified command status, moreover, would enable the MAC commander to deal on a more equitable footing with the other commanders in chief and give the major command responsible for all military airlift the advantage of being in the direct chain of command from the National Command Authorities through the Joint Chiefs of Staff.47

Headquarters MAC made its own case for specified command status as well. In addition to the advantages General Brown put forth, the MAC staff desired specified command status because it would mean increased representation in the planning process of the joint services. They also believed the Air Force would exert more influence on decisions regarding the use of airlift as an instrument of national policy and that the command would have more standing on the direction of airlift matters during periods of national emergencies.⁴⁸

By late spring 1976, the lessons of Southeast Asia and NICKEL GRASS and the successful consolidation of all airlift assets had tilted Pentagon opinion in favor of granting MAC specified command status. Deputy Secretary of Defense William P. Clements, Jr., after carefully considering all sides of the issue, gave his approval to specified command status on 9 June 1976 for these reasons:

Under this command structure, the JCS will include the MAC staff in planning for JCS exercises and for war, will direct the allocation of airlift resources, prioritize competing movement requirements and direct MAC during deployments, exercise, or as necessary in periods of crisis to insure operational support of unified commands.⁴⁹

Secretary Clements next directed the Joint Chiefs of Staff to prepare an implementation plan, and on 25 June 1976, they authorized the Military Airlift Command specified command status. President Gerald R. Ford approved the Defense Department's recommendation that December, and Secretary of Defense Donald H. Rumsfeld advised Congress of his intention to officially grant MAC specified command status, effective 1 February 1977. The assumption of specified command status required only two

UNITS TRANSFERRED TO MAC 1974-1975

TACTICAL AIR COMMAND

1st Aeromedical Evacuation Group, Pope AFB 1st Aerial Port Group, Langley AFB 1st Aerial Port Squadron, Dyess AFB 2d Aerial Port Squadron, Pope AFB 3d Aerial Port Squadron, Pope AFB 4th Aerial Port Squadron, Langley AFB 314th Tactical Airlift Wing, Little Rock AFB 316th Tactical Airlift Wing, Langley AFB 317th Tactical Airlift Wing, Pope AFB 463d Tactical Airlift Wing, Dyess AFB 834th Air Division; Little Rock AFB (inactivated 31 Dec 74) 839th Air Division, Pope AFB (inactivated 31 Dec 74) Little Rock USAF Hospital Pope USAF Clinic

UNITED STATES AIR FORCES IN EUROPE

2d Aeromadical Evacuation Group, Rhein-Main AB 5th Aerial Port Squadron, RAF Mildenhall 55th Aeromedical Airlift Squadron, Rhein-Main AB 322d Tactical Airlift Wing (combined with 435th MASW to form 435th TAW) Rhein-Main AB host responsibilities (1 Jul 75)

PACIFIC AIR FORCES

9th Aeromedical Evacuation Group, Clark AB 6th Aerial Port Squadron, U-Tapao AB 20th Operations Squadron, Clark AB 21st Tactical Airlift Squadron, Clark AB 345th Tactical Airlift Squadron, Kadena AB 374th Tactical Airlift Wing, Clark AB 776th Tactical Airlift Squadron, Clark AB

UNITED STATES AIR FORCE SOUTHERN COMMAND

1300th Military Airlift Squadron, Howard AFB (31 Mar 75)

ALASKAN AIR COMMAND

17th Tactical Airlift Squadron, Elmendorf AFB



MAC C-141 and C-130 alrcraft at Pope Air Force Base, North Caroline, awaiting orders to deploy the 82d Airborne Division to Zaire during SHABA II, May 1978. This phase of the operation was canceled when foreign nationals, trapped in the Shaba Province after an invasion by Kantangese rebels, managed to reach safety. Later MAC moved United Nations peacekeeping forces to Zaire.

changes in the organizational structure of Headquarters MAC. The MAC Operations Center established direct communication links with the National Command Center, and a new office was created to deal with matters pertaining to the unified and specified commands, the Joint Chiefs of Staff, and International Pact Organizations.⁵⁰

HUMANITARIAN AIRLIFT OPERATIONS

Besides supporting contingency operations, Military Airlift Command aircraft performed numerous highly visible humanitarian airlift operations. These missions of good will likewise demonstrated MAC's mobility and flexibility. In supporting these humanitarian missions, the command's crews also trained for their wartime roles. Expeditiously airlifting food, medicine, and shelter to areas devastated by earthquakes or other disasters was an important activity for the Military Airlift Command throughout the 1970s. Through these diverse humanitarian airlift operations, MAC helped relieve suffering in every corner of the globe and, in the process, served as an important instrument for advancing the United States' national policy objectives.

The most highly publicized of the MAC humanitarian missions dealt with ameliorating the suffering caused by natural disasters. For example, Military Airlift Command aircrews transported disaster relief supplies to Pakistan in August and September 1973, after a horrendous flood, and to Guatemala City and Turkey after devastating earthquakes struck in 1975 and 1976, respectively. Even before the end of the Cold War in 1989, American governmental leaders often forgot political ideology to lend assistance to those in dire need. This occurred in August 1975 when two MAC C-141s airlifted a wide assortment of relief supplies to Bucharest, Romania.⁵¹



Entire sections of Guatemala City were destroyed by the devastating earthquake of February 1975. The United States sent a field hospital, helicopters, and tons of medical and other urgently needed supplies with MAC providing the airlift.

The command frequently assisted emergencies in the United States as well. For instance, on 11 February 1977, an immense snowfall paralyzed Buffalo, New York, and created the need for disaster assistance. The Military Airlift Command responded with 9 C-5, 11 C-141, and 28 C-130 missions that airlifted nearly 1,000 tons of equipment and 500 passengers from Colorado, Iowa, Michigan, and North Carolina to Niagara Falls, New York, to assist with the massive snow removal operation. A combined force of MAC airlifters then returned 750 tons of cargo and 385 passengers from Niagara Falls to Pope Air Force Base, North Carolina, in 40 missions.⁵²

Humanitarian airlift missions also helped people overcome man-made catastrophes. Headquarters

MAC, in its important role as the airlift contracting agency for the United States government, arranged for the commercial air transportation of more than 31,500 refugees on 117 missions from Angola to Portugal after a civil war in 1975 forced most of the country's European residents to flee. World Airways, Trans International Airlines, Overseas National Airlines, and Seaboard World Airlines provided the MAC-managed portion of this widely reported international airlift in which more than 204,000 refugees, most of them Portuguese nationals, were airlifted to Lisbon.⁵³ On another occasion, in early March 1976 at the request of the Mining Enforcement and Safety Administration in Washington, DC, MAC diverted C-130s from routine training missions to deliver rescue teams and equipment to assist in dealing with a coal mine disaster that had occurred near Partridge, Kentucky.54

A most vivid demonstration of airlift's diversity and responsiveness to man-made events took place in March and April 1979 after serious malfunctions occurred in a reactor at the Three-Mile Island nuclear power plant near Harrisburg, Pennsylvania. Supporting Nuclear Regulatory Agency efforts to prevent the dissemination of nuclear materials, MAC transports flew one C-130, two C-5, and 12 C-141 missions to deliver a mobile rawindsonde station from MAC's 6th Weather Squadron, lead bricks and shielding, a water filtration unit, charcoal filters, and potassium iodine to Harrisburg for subsequent ground transportation to Three-Mile Island. The following month, a C-141 airlifted 2.5 tons of radiological equipment from Kintland his Force Less, New Mexico, to Harrisburg. Later the Nuclear Regulatory Agency asked MAC to deliver barrels of contaminated water to ground disposal sites.86

At other times, the Military Airlift Command was called upon to furnish airlift to alleviate the human suffering caused by some catastrophe that had gained the nation's attention through extensive media coverage. One such widely publicized event occurred in November 1978 when nearly 1,000 religious cult members belonging to the Peoples Temple Church, a United States religious cult in Guyana led by the Reverend Jim Jones, committed mass suicide. Among the dead were California Congressman Leo J. Ryan and four members of his staff, who had gone to Guyana to investigate the cult; they were murdered at the Port Kaituma landing strip as they prepared to depart for the United States. The State Department requested that MAC undertake the grim task of recovering the bodies of the American citizens. Recovery operations, however, proved difficult in the remote location. The undertaking required MAC to airlift several hundred grave registration and medical services specialists to Georgetown, Guyana's capital city, on two C-141 and one C-130 missions. Three of MAC's HH-53 rescue helicopters then shuttled the



Air Force personnel extending a helping hand when Lajes suffered an earthquake in January 1980.



Buffalo Blizzard, a MAC C-130 delivering snow removal equipment to the crippled city.

corpses from the suicide site on 30 sorties from Jonestown to Georgetown. Thereafter, MAC airlifted the 915 bodies to the Air Force mortuary at Dover Air Force Base, Delaware, where a special staff identified the remains, prepared them for interment, and notified the next of kin.⁵⁶ Again, this operation mirrored what the Military Airlift Command would do during wartime.

OPERATIONS INVOLVING IRAN AND AFGHANISTAN

Two international events in the closing days of the 1970s required the United States to rely upon the airlift resources of the Military Airlift Command. Iran, ruled since 1941 by Shah Mohammad Reza Pahlavi, had been a reliable friend of the United States. By the late 1970s, however, the Shah's influence and western orientation were under attack, amid a revival of Islamic extremism. In the autumn of 1978, Islamic fundamentalists, demanding the return of their leader Ayatollah Ruhollah Khomeini exiled in France, instigated massive and persistent demonstrations against the Shah. The protests, riots, and strikes became so threatening that on 16 January 1979, the Shah and his family left Iran after placing control of the government in the hands of a regency council. Ayatollah Khomeini returned triumphantly to Iran on 1 February 1979 and guickly established a draconian, fundamentalist Islamic government. The Khomeini regime was blatantly hostile to western values, especially those the Ayatollah believed were manifested in the culture of the United States.⁵⁷

In the closing days of 1978, with political tensions and anti-government violence threatening the American community in Iran, the Joint Chiefs of Staff directed MAC to airlift any United States citizens wanting to leave Iran. This policy resulted in two C-5 and nlne C-141 missions transporting approximately 900 Americans from Tehran to Europe and the United States on 9 December 1978. Before the year ended, the State Department urged all United States military dependents to leave Iran. As the situation intensified with violent demonstrations, MAC continued the evacuation missions from Tehran in January and February 1979.⁵⁹

Worse was yet to come. Goaded on by Khomeini and the other mullahs, the fundamentalists intensified their anti-American feelings throughout 1979. On 4 November 1979, Islamic revolutionaries, demanding the return of the exiled Shah, stormed the United States embassy in Tehran and took several dozen members of the embassy staff hostage. With Khomeini's approval the militants kept 52 American hostages captive for 444 days, despite a unanimous vote of condemnation by the United Nations Security Council and the repeated appeals of nearly every head of state.

Another troubling development in Southwest Asia followed on Christmas Eve 1979, when Soviet airborne troops Invaded Kabul, the capital of Afghanistan. The Red Army troops continued to occupy Afghanistan until 15 February 1989. While an Afghan Communist government ruled the country from Kabul, Soviet forces waged a scorched earth policy against Afghan freedom fighters, the Mujahideen, and the civilian population who supported them for more than nine years.

In response to the events in Iran and Afghanistan, President Jimmy Carter increased the United States' naval presence in the Persian Gulf and Indian Ocean areas. In support of this naval buildup, MAC operated four C-5 special assignment airlift missions from Norfolk Naval Air Station, Virginia, to Diego Garcia on 20-21 November 1979. The four MAC missions airlifted 200 tons of cargo and 160 personnel who were assigned to the Navy helicopter unit, Helmineron Sixteen.⁵⁹ By the end of 1980, besides conducting regularly scheduled missions to the Indian Ocean island of Diego Garcia, most of MAC's Indian Ocean resupply missions airlifted naval personnel to Diego Garcia; Muscat, Oman; Masirah, Oman; or Mombasa, Kenya. MAC's special assignment airlift missions resupplying the United States Indian Ocean Task Force originated from such diverse bases as Travis Air Force Base, California: Cubi Point Naval Air Station, Philippines; and Norfolk, Virginia.⁶⁰ With Islamic extremists firmly in control of Iran and with Soviet forces still in Afghanistan, the increased United States military presence continued in the Indian Ocean and Persian Gulf areas for the remainder of the eighties, and MAC supported this effort.

MAC AIRLIFTS THE RELEASED HOSTAGES

Throughout 1980, negotiations for the freedom of the Americans held by Iranian revolutionaries proceeded through a variety of diplomatic channels. By November credible rumors were circulating that a hostage release was pending. Accordingly, the Military Airlift Command commenced planning for the return of the 52 Americans. Since the health of the hostages was the most important consideration, the Joint Chiefs of Staff directed MAC in December to prepare for an aeromedical airlift. Consequently, by Christmas, the 2d Aeromedical Evacuation Squadron and the 55th Aeromedical Airlift Squadron, both at Rhein-Main Air Base, Federal Republic of Germany, had been placed on alert and stood ready to respond around-the-clock with two air and medical crews. On 19 January 1981, the United States finally completed its release agreement with the Khomeini government, and the two squadrons made final preparations for the aeromedical airlift mission.

The following day, Iran freed the 52 hostages the militants had seized 15 months before. The hostage release occurred almost simultaneously with the inauguration of President Ronald Reagan as the 40th President of the United States. The Iranians timed the release so as to minimize President Carter's important role in ending the crisis. An Air Algeria Boeing 727 flew the freed Americans from Tehran to Algiers where two C-9A Nightingales waited to transport the former hostages to their next destination. The aeromedical crews gave the 52 Americans preliminary medical examinations in Algiers. None proved ill or injured, but according to plans, the C-9As took the exhostages to Rhein-Main for more thorough examinations at the USAF Regional Hospital at nearby Wiesbaden prior to their return to the United States.

Major Michael A. Connor, assigned to the 55th Aeromedical Airlift Squadron, was the mission



Bruce Langdon, ranking US hostage, got a warm greeting from top government officials at Andrews Air Force Base, Maryland. In the receiving line, left to right: Vice President and Mrs. George Bush; Speaker of the House, Tip O'Nail; Secretary of State Al Haig; and Secretary of Defense Caspar W. Weinberger. commander for the two MAC C-9As that deployed to Algiers. Each C-9A carried 26 released Americans, 11 MAC crewmembers, and 9 State Department representatives. The Nightingales landed at Rhein-Main at 0444 local time, where the freed Americans were greeted by a large crowd of fellow Americans and more than 1,500 media representatives from 253 international news organizations. Major Connor described his part in the airlift as "the high point" of his life and added that the performance of his fellow crewmembers was "just another example of MAC at its finest."

The command's role did not end at Rhein-Main, for on 20 January former Secretaries of State Cyrus R. Vance and Edmund S. Muskie flew from Washington to West Germany to greet the freed Americans; former President Carter followed the next day and informed them of the many diplomatic efforts to secure their release. C-137 Stratoliners operated by the command's 89th Military Airlift Wing at Andrews Air Force Base transported both parties, and on Sunday, 25 January 1981, a C-137 from the 89th brought the 52 Americans home to the United States. This aircraft, and its crew of 20, transported the group to Stewart Airfield, New York, for a cheerful reunion with their families.

As was later revealed, a MAC humanitarian airlift conducted the end of 1980 had played an integral part in the diplomatic equation that ultimately achieved the hostages' release. On 10 October 1980, two major earthquakes struck Al Asnam, Algeria, a city of 125,000 located 120 miles southwest of Algiers. When the tremors stopped, more than 80 percent of the city lay in ruins. The earthquake killed 6,000 people and left more than 200,000 others from Al Asnam and the

surrounding area homeless. The State Department asked that relief supplies be airlifted to the disaster area, and in response, MAC transported 340 tons of supplies to Algeria on 2 C-5, 14 C-141, and 1 C-130 missions during a two-week period. This rather typical MAC humanitarian airlift to Algeria paid an unexpected dividend when the government of Algeria, grateful for the United States' humanitarian airlift in its hour of desperate need, volunteered vital diplomatic assistance in negotiating the hostages' release with the government of Iran. Secretary of the Air Force Dr. Hans Mark in a letter to General Robert E. Huyser, MAC Commander-in-Chief, explained Algeria's role in the hostage release and the value of military airlift as an instrument of national policy:

> There is no doubt in my mind that our airlift forces are a major method that the United States has for exercising influence abroad.... Our help to Algeria after the earthquake there led in turn to their help to us in persuading Iran to release the American prisoners. We could not have assisted the Algerians without our airlift resources.

SOURCES: History of the Military Airlift Command, 1 January-31 December 1980 (Scott AFB, IL: Office of MAC History, 1982) pp 140, 141; History of the Military Airlift Command, 1 January-31 December 1901 (Scott AFB, IL: Office of MAC History, 1983), p 172; Command Post (Scott AFB, IL), 23 January 1981, p 1; History of the 435th Taotical Airlift Wing, 1 January-31 December 1901, pp 34-36; message, Headquarters MAC, Office of Public Affairs, "MAC Crew Members Assist in Hostage Return," January 1981; fact sheet, Headquarters MAC, Office of Public Affairs, 24 January 1981.

CONCLUSION

Defense Department officials drew heavily upon the experiences of the Southeast Asia Conflict and the Israeli Airlift. The lessons of these activities led the Air Force to consolidate tactical airlift with strategic airlift under the Military Airlift Command and to grant MAC specified command status. The latter action made MAC's commander accountable directly to the Joint Chiefs of Staff. Both actions confirmed the importance of airlift in accomplishing national policy objectives in peace, war, and contingencies. Humanitarian airlift operations projected national policy and conveyed the good will of the American people around the world. The post-Vietnam period set the stage for an even greater diversity of airlift activity in the command's fifth decade.



McMurdo Sound, Antarctica. The C-5 Galaxy made its first flight to the Antarctic in October 1989.

A DECADE OF CHANGE, 1981-1991

Near the end of the 1970s, dramatic world events affected American foreign policy, and in the process, the Military Airlift Command increasingly served as an instrument for the execution of the United States' national security objectives. First, the 1979 Iranian revolution and the escalating Soviet threat roused Congress to commission a mobility study to investigate the military's ability to respond to various crises throughout the world. The Congressionally Mandated Mobility Study recommended rebuilding American airlift capability. Second, the failed attempt in March 1980 to rescue the hostages held captive by Iranian students dramatized the limitations of the United States' special operations forces. Military operations in Grenada further highlighted organizational shortcomings among the services. As a result, the military and Congress expended much time and effort in the 1980s determining the optimum organization and force structure of special operations forces and the need to better integrate global air, land, and sea transportation resources. These reviews brought about a reorganization of the Department of Defense and the creation of unified commands for special operations and transportation. Finally, although the Military Airlift Command received praise for its performance during a variety of difficult missions, even relatively small contingencies, such as those in Grenada and Panama, underscored the need for additional airlift capability. At the end of the command's fifth decade, as the Cold War ended, events in the Middle East overshadowed the new order dawning in Europe.

CONFRONTING THE AIRLIFT SHORTFALL

As a result of tensions in the Middle East and a continuing Soviet military build-up in Europe, Congress included a requirement in the Defense Authorization Act of 1981 for a study to address America's mobility needs. This *Congressionally Mandated Mobility Study* (CMMS), published by the Defense Department in April 1981, was an extensive effort to determine the proper mix of airlift, sealift, and prepositioning resources the United States required to respond to the various military contingencies of the 1990s.

The Congressionally Mandated Mobility Study evaluated mobility requirements for four representative scenarios: a conflict in the Persian Gulf; a Soviet invasion of Iran; a NATO-Warsaw Pact conflict; and a confrontation in the Persian Gulf with a precautionary reinforcement of Europe. With regard to airlift, CMMS concluded that "Current forces cannot meet the lift demands of any of these contingencies" and recommended a program to improve the military's mobility capacity in all areas, including adding 20 million ton-miles per day (MTM/D) to the intertheater airlift capability, half of which should be outsized cargo."

Following the release of the Congressionally Mandated Mobility Study, the MAC Plans staff analyzed its recommendations as well as the command's present and projected capability. In March 1983, Headquarters MAC published a Master Airlift Plan. By adding the recommended 20 MTM/D goal to the command's 1986 projected intertheater airlift capability of 46 MTM/D, planners established a fiscally constrained minimum goal of 66 MTM/D.² They arrived at this figure by evaluating the command's 1983 intertheater airlift capacity of 28.7 MTM/D, attained through a combination of 215 C-141s, 64 C-5As, and 88 Civil Reserve Air Fleet aircraft, and the projected capacity for 1988 of 48.5 MTM/D, acquired by adding 44 C-5Bs, 41 KC-10s, and enhancing some of the CRAF assets. They then investigated various options to meet the desired 66 MTM/D.3

The Master, Airlift Plan maintained that the programmed intratheater capability would remain constant. Since CMMS had not dealt with intratheater requirements, MAC officials postponed consideration of increases in intratheater airlift until on-going studies had established the needs generated by the restructured intertheater force. They acknowledged, however, that the current intratheater airlift capability of 9,197 tons per day (T/D) was barely sufficient to distribute 28.7 MTM/D delivered by strategic transports.⁴

The Master Airlift Plan considered six options for reaching the strategic airlift goal of 66 MTM/D and maintaining intratheater airlift requirements. The options fell into three categories: additive, modernize, and long range. The additive force options considered ways to augment the fiscal year 1989 baseline airlift force to reach delivery goals by adding new airplanes without retiring any C-130s or C-141s. Planners rejected both possibilities because of excessive cost. The second set of options addressed the need to modernize the fleet by 1998 through acquiring new aircraft, reducing crew ratios on the C-141s, and retiring some C-141s and C-130s. In the long-range category, MAC officials established the need to provide airlift after the retirement of all C-141s and C-130s and recommended purchasing 220 C-17s. The MAC Plans staff calculated that replacing the aging aircraft with new C-17s instead of C-5Bs and

new model C-130s would save the Air Force \$17.9 billion and require 16,500 fewer people. In September 1983, as published in the USAF Airlift Master Plan, Air Force Chief of Staff General Charles A. Gabriel approved a combination of modernization and longrange force options, mandating the modernization of the airlift fleet between 1989 and 1998 and the creation of an efficient and effective force by 2015. With this decision, Headquarters USAF and MAC committed themselves to the development of the C-17.⁶ Even before the Congressionally Mandated Mobility Study and the USAF Airlift Master Plan, the Military Airlift Command had already taken steps to improve the airlift shortfall. The MAC program included increasing utilization rates for the C-5 and C-141 by making more crews and spares available. The command also "stretched" and added an air refueling capability to the C-141, completing this modification work in 1982. Another program replaced the wings on the C-5, thereby eliminating past operating restrictions. To further expand its strategic

USAF AIRLIFT MASTER PLAN RECOMMENDATIONS

1998 Force

Retire 180 older C-130s between 1991 and 1998.

Retire 54 C-141Bs as they reach the end of their useful service life by 1998.

Transfar 180 C-141s to the Air Reserve Forces between 1991 and 1998.

Acquire 180 C-17s by 1998 for the active/reserve associate program.

Retain 114 C-5s in the active/reserve associate program.

Maximize the practical use of CRAF Enhancement.

Retain a minimum of 11.8 MTM/D in the CRAF program.

Retain a minimum of 144.9 MPM/D in the CRAF program.

Preserve the option to add capability to meet intratheater requirements as quantified in forthcoming intratheater studies.

Baseline Long-Range Force Structure Features

Retire 180 C-141Bs at the end of their service life between 2010-2015.

Acquire at least 40 additional C-17s for either the reserves or the active/reserve associate program to replace retiring C-141Bs.

Retain 114 C-5s in the active/reserve associate program.

Maximize the use of CRAF Enhancement.

Retain a minimum of 11.8 MTM/D in the CRAF program.

Retain a minimum of 144.9 MPM/D in the CRAF program.

Preserve the option to provide the active/reserve forces with C-17s and/or a new technology airlifter to help satisfy future airlift requirements.



To increase airlift capacity, MAC contracted with the Lockheed-Georgia Company to "stretch" the C-141, December 1979.

airlift capability, MAC planners recommended buying additional aircraft. Command leaders were also committed to developing more cargo capability in the Civil Reserve Air Fleet.⁶

With regard to the Civil Reserve Air Fleet, MAC officials sought ways to increase participation throughout the 1980s. Included in the *Congressionally Mandated Mobility Study* was a recommendation to secure more cargo airlift capability through the CRAF enhancement program. Under this program, the Defense Department paid for modifications on civil carrier wide-body passenger aircraft—strengthening the floor and adding a large cargo door and cargo-rollers to make the aircraft compatible with MAC's 463L loading system. After the modifications, the aircraft would return to passenger service with the civil carrier until needed in a contingency. Later, the program was expanded to allow the carriers to use these aircraft in the cargo configuration.⁷

Despite the obvious advantages of the CRAF enhancement program, Congress did not immediately allocate sufficient money to have much effect. By the end of 1982, the Defense Department had contracted for only one modification, a United Airlines DC-10. Later, in September 1983, as more money became available, the Air Force signed a CRAF enhancement contract with Pan American World Airways to modify 19 Boeing 747s in five increments. In September 1987, a third contract was signed with the Federal Express Corporation to modify a DC-10 aircraft, and in September 1988, Evergreen International Airlines committed two of its B-747s. The last of the 23 modified DC-10 and B-747 aircraft joined the reserve fleet in February 1990. Through this program, 3.4 MTM/D in cargo airlift capability was added for national defense requirements.*

Throughout the decade, the Defense Department's peacetime airlift augmentation business remained a

strong incentive for CRAF participation. In the early 1980s, MAC averaged less than \$400 million annually in commercial airlift augmentation buys. In 1988 and 1989, this figure climbed to well over \$500 million. As the decade closed, civil carriers had placed 506 commercial aircraft in the CRAF program.

The final element of the airlift build-up was the acquisition of new aircraft. The crisis in airlift, disclosed in the Congressionally Mandated Mobility Study, prompted Air Force leaders to look for immediate solutions as they considered future requirements. On 26 January 1982, Headquarters USAF recommended purchasing 50 C-58^e and 44 additional KC-10 combination tanker/cargo aircraft. The Strategic Air Command had earlier acquired 16 KC-10s to augment the KC-135 tanker force and perform transport missions, if needed. General James R. Allen, MAC Commander in Chief, and other command leaders supported this decision as an interim solution until a new multipurpose airlifter could be developed. The new C-5s would increase outsized airlift capacity by nearly 60 percent and provide an additional 8 MTM/D. The KC-10s would serve as cargo carriers, as tankers in support of airlift missions, or in a dual role during deployments.¹⁰ The Military Airlift Command accepted the first operational C-5B on 8 January 1986 and assigned it to Altus Air Force Base, Oklahoma, where the 443d Military Airlift Wing began using it for training missions. In accordance with the USAF Airlift Master Plan, the command kept the C-5 primary aircraft authorization level at 70 and transferred older C-5As from the Dover and Travis units to the reserves as new aircraft became available.¹¹ The last C-5B entered the MAC inventory on 17 April 1989. A year later, McDonnell-Douglas delivered the final KC-10 to the Strategic Air Command.

The C-5Bs and KC-10s, along with the enhanced CRAF aircraft, provided additional strategic airlift capability; however, these increases placed added pressure on intratheater airlift. In addressing near-term airlift requirements, military leaders determined that only an aircraft that could carry outsized cargo directly to unimproved airfields in potential combat areas would answer the need. In late 1979, a Department of Defense task force began studying the characteristics and performance capabilities a new transport aircraft, dubbed the C-X, would have to have in order to meet the United States' growing requirement for rapid mobility. The task force concluded the C-X must be reliable; rugged; fuel efficient; air refuelable; capable of operating from small, austere airfields; and able to haul significant payloads over intercontinental distances. Beeing, Lockheed, and McDonnell-Douglas aircraft companies submitted proposals on 17 January 1981 to build such an airlifter. After several months of evaluation, Secretary of the Air Force Verne Orr announced on 28 August 1981 that the C-X source selection committee had chosen McDonnell-Douglas as the



Arrival of the first C-5B at Altus Air Force Base, Oklahoma, 8 January 1986.



On 7 June 1989, during AIRLIFT RODEO, a C-58 alrcrew set a world's airlift record by dropping four Army Sheridan armored reconnaissance vehicles and 73 paratroopers from the 82d Airborne Division, for a total record weight of 190,346 pounds.

prime contractor for the aircraft the Air Force would soon call the C-17.12

Concurrently, the 1981 Department of Defense Authorization Act required an analysis of the mobility assets needed to respond to a wide range of global crisis scenarios. As previously discussed, the *Congressionally Mandated Mobility Study* examined the total mix of airlift capabilities, including the C-5, C-141, C-130, and the CRAF, and concluded that the United States lacked sufficient mobility resources. In addition to other suggestions for increasing airlift, the study emphasized the advantages of an aircraft that could fly intercontinental distances and deliver significant payloads to airfields in forward operating areas. In essence, CMMS confirmed the need for the C-17.¹³

Some congressional leaders, however, did not agree that the McDonnell-Douglas C-17 was the answer to the airlift shortage. Under their prodding, Congress refused to allocate funds for development of



The first C-17 at Douglas Aircraft Company's Long Beach plant in California, July 1990. The C-17 was designed to carry combat troops and cargo directly from the United States to small, austere airfields overseas.

the C-17 during 1982 and suggested continuing the search for an alternative. The 1982 budget directed the Department of Defense to buy existing widebodied aircraft such as the Lockheed C-5, the Boeing 747, and the McDonnell-Douglas KC-10.¹⁴ During the next several years, political considerations slowed the C-17's development.

Throughout the 1980s, the command's leadership remained steadfast in its support of the C-17. By 1988, it appeared that MAC had finally proven its case to Congress. Federal spending cuts and a reduced defense budget again threatened the aircraft, however, this time from within the Defense Department. Command leaders had already persuaded Congress that the C-17 was the right aircraft; now they had to induce the Defense Department to buy enough to do the job. General Duane H. Cassidy, MAC Commander in Chief, garnered support from the "using" commanders and Joint Chiefs of Staff Chairman Admiral William J. Crowe to convince the Defense Resources Board to continue funding the C-17.¹⁵

Glasnost and the collapse of Communism in Eastern Europe during 1989 and 1990 resulted in further constrictions of the defense budget and forced Secretary of Defense Richard B. Cheney to reevaluate the entire military structure, including airlift resources. In testimony before the Senate Armed Services Committee on 26 April 1990, Secretary Cheney stated that the declining threat in Europe had extended the response time from hours or days to months for deploying American forces to confront possible threats. The longer time translated into a perception that airlift was less critical than had once been the case. This, he added, was a mistaken impression, for as American forces were withdrawn from overseas, airlift would be relied upon even more extensively to deploy forces rapidly. Although Cheney reaffirmed that airlift resources were vital national assets, he indicated that the military's restructuring meant building a force of 120 C-17s instead of 210 as planned. The Secretary also suggested maintaining airlift capacity at the current 48 MTM/D since "fundamental changes" in Europe no longer justified the 66 MTM/D goal.16 Although the command's future airlift force would undoubtedly include a combination of C-17s, C-5s, C-141s, C-130s, and CRAF aircraft, the size and capability of that force remained unresolved as the decade closed.

OPERATION URGENT FURY: GRENADA

During October and November 1983, MAC provided the airlift for Operation URGENT FURY, the combined American and Organization of Eastern Caribbean States' incursion into Grenada. The tiny, spice-producing Caribbean island of 108,000 people located 90 miles north of Venezuela had been a British colony for nearly two centuries, but gained full independence in 1974. On 13 March 1979, Maurice Bishop and the socialist New Jewel Movement forcibly took over Grenada in a bloodless coup, and the country moved politically closer to Cuba and the Soviet Union. By the end of 1979, President Jimmy Carter's Administration had stopped all economic aid to Grenada, and relations between the two countries degenerated considerably.¹⁷

Because of Grenada's strategic location, American leaders became concerned over the Soviet and Cuban presence there, including the construction of a large airport complex. If Soviet aircraft operated from the island, they could pose a serious threat not only to shipping in the Caribbean but to Central America, northern South America, and the southern United States.1* During 1983, Bishop's attitude toward the United States gradually warmed, but on 12 October, a dispute between him and more radical members of his government erupted into open conflict. This led to Bishop's immediate house arrest and his execution a week later. Grenada's unstable condition convinced President Ronald Reagan that the lives of more than 600 American students, tourists, and residents were in danger. On 19 October, the Joint Chiefs of Staff alerted the Commander in Chief of the Atlantic Command, Admiral Wesley McDonald, to plan for a noncombatant evacuation operation from Grenada.19

The operation quickly expanded when the Organization of Eastern Caribbean States asked the United States to join in a military action to restore democracy and political stability to the island. President Reagan approved the revised plan on 21 October, and the Joint Chiefs of Staff notified Admiral McDonald to begin the operation no later than 25 October. The JCS message outlined the three primary goals of Operation URGENT FURY: first, to evacuate American and third-country nationals; second, to "neutralize" the Grenadan military and any military force on the island that might interfere with the evacuation; and, third, to restore political stability and democracy to Grenada.²⁰

The Joint Chiefs of Staff plan called for Marines from an aircraft carrier task force to attack the northern end of the island while MAC would either airland or airdrop an Army Ranger force on the Point Salines airport complex on the island's southern tip. On 23 October 1983, elements of the 2d Battalion, 75th Infantry Division (Ranger), from Fort Lewis, Washington, boarded C-141s at nearby McChord Air Force Base for the flight to a staging base at Hunter Army Air Field, Georgia. There, the 2d joined with the 1st Battalion of the 82d Airborne Division from Fort Bragg, North Carolina. The following evening, 24 October, the Rangers boarded MAC C-130 transports for the assault on Grenada. An MC-130E Combat Talon from the 1st Special Operations Wing at



Hurlburt Field, Florida, led the first wave of seven aircraft. A second wave of five C-130s followed 20 minutes later. The Military Airlift Command also provided AC-130H *Spectre* gunships for close-air support.²¹



An 82d Airborne Division troop guarding the Point Salines runway with a MAC C-141 in the background, Operation URGENT FURY.

Before daybreak on 25 October 1983, a lone AC-130H made a high-speed pass over Point Salines to determine the condition of the runway and assess any anti-aircraft artillery threat. Using low-light television cameras and infrared sensors, the Spectre's crew detected construction equipment and other vehicles blocking the runway. Although the gunship attracted considerable anti-aircraft fire, on-board sensors revealed that it was not radar-controlled. Using the information provided by the AC-130's crew, the first MC-130, which had planned to land with its Ranger force, changed to an airdrop run over the Point Salines complex and encountered heavy fire from the ground. After the AC-130 went back in and poured 20mm and 40mm cannon fire into suspected enemy positions, the remaining six aircraft in the first wave completed their airdrop missions. The first squads of Rangers were all on the ground by 0600 local time. Additional MAC C-130s flew Rangers into Point Salines throughout the morning.22

By that afternoon, the Rangers, with the help of *Spectre* gunships, had secured the Point Salines airport sufficiently for C-141s to land. Twenty-eight *Starlifters* and six C-5s carried elements of the 82d Airborne Division from Pope Air Force Base, North Carolina. The C-5s touched down at Grantly Adams Airport on Barbados, where C-130s waited to ferry the troops on to Grenada. The C-141s landed at Point Salines on a runway with no approach or landing lights, with equipment blocking more than one-third

of its length, and still subjected to intermittent ground fire.²³

After securing the Point Salines airport area, the Rangers headed for the True Blue campus of St George's University Medical School where American students were enrolled. The Rangers quickly cleared the defenders from near the campus and rescued the few dozen students who were still there. The majority of the American students, however, had either left the True Blue campus already or were at the Grand Anse campus four miles north. The Rangers faced some opposition over those four miles and did not reach the students at Grand Anse until nearly 1700 hours the following day, 26 October. Waiting C-141s carried the rescued students first to Barbados, then to Charleston Air Force Base, South Carolina, on nine missions.²⁴



American students from the St. George's Medical School in Grenada board a C-141 evacuation mission, bound for Charleston Air Force Base, South Carolina.

Besides the other activities in Grenada, MAC also evacuated numerous noncombatants and Cuban prisoners-of-war captured or wounded during the fighting and their International Red Cross escorts. The command's C-130s flew the Cubans to Barbados where Cuban aircraft picked them up and carried them home. On 2 November, the Grenada Joint Task Force Commander, Vice Admiral Joseph Metcalf III, announced that hostilities on Grenada had officially ended.²⁶

The Military Airlift Command participated in every phase of URGENT FURY. The C-141s airlifted Army forces to the staging base at Hunter Army Air Field and then on to Grenada; C-5s carried troops from the United States to Barbados near the battle zone; and C-130s flew troops both from the United States and the staging area on Barbados and airdropped/airlanded them at the battle site. The *Starlifters* also brought in supplies and equipment to maintain the forces in


With their mission completed, elements of the 75th Rangers depart Point Salines for the return trip to the United States.

the field and evacuated students and American wounded. During the deployment phase, MAC C-5s, C-141s, and C-130s flew 496 missions carrying 11,389 passengers and 7,709 tons of cargo. Another 292 missions supported the redeployment. AC-130 gunships aided the ground troops and protected the paratroopers, using suppressive fire against enemy positions. In addition, the C-130s flew 203 missions (804 sorties) in direct support of ground operations.²⁴

Although Secretary of Defense Caspar W. Weinberger described URGENT FURY as "a job extremely well done," the Senate Armed Services Committee staff disclosed significant inadequacies in the operation. The Senate report considered the inability of some units to communicate to be especially alarming. The lack of communication between the Army and Navy prevented ground troops from directing naval gunfire and hampered naval air support. According to the Senate Armed Services Committee staff, "the coordination between the Army and the Navy ranged from poor to nonexistent." The failure to appoint a single ground commander contributed to coordination difficulties. In addition, the last-minute planning created a logistics nightmare. Troops arrived on the island with a

minimum of equipment and supplies. The obstacles on the runway at Point Salines allowed only one MAC aircraft at a time to land, unload, and takeoff. The report stated, "Many units deployed from U.S. bases to Grenada actually spent more time circling the Point Salines airfield than in transit." Despite these shortcomings, the staff concluded: "The operation in Grenada was a success, and organizational shortcomings should not detract from that success or from the bravery and ingenuity displayed by American servicemen. However, serious problems resulted from organizational shortfalls which should be corrected."²⁷ These difficulties drove the Packard Commission and the Senate Armed Services Committee to recommend the reorganization of the Defense Department and the creation of unified commands for special operations and transportation. They also prompted MAC to improve some of its procedures, especially accelerating the development of a comprehensive command and control system which would allow a near real-time flight-following capability for all MAC aircraft and provide the reins of control necessary to coordinate massive operations worldwide.

MAC AND LEBANON OPERATIONS

As URGENT FURY unfolded, the Military Airlift Command was already supporting the deployment of Marines in Beirut, Lebanon. Beginning in August 1982 a multinational force had entered Beirut to maintain stability as the Israeli armed forces withdrew following an invasion designed to break the back of the Palestine Liberation Organization operating in southern Lebanon. Although MAC regularly airlifted material to support the American Marine force in Beirut, the command's most significant involvement arose following a September 1983 offensive. President Ronald Reagan ordered the deployment of additional Marines to the area, and the Department of Defense called upon MAC to airlift approximately 4,000 tons of supplies from the United States to Lebanon as part of Operation RUBBER WALL. The command flew 85 C-141, 24 C-5, and 4 C-130 missions between 3 and 25 September.

RUBBER WALL was an extremely difficult resupply operation. Much of the cargo consisted of ammunition, needed to replenish the stocks the Marines had given to the Lebanese or used in the offensive. But the decision to resupply the American forces in Beirut was made so late that it had to take place very quickly; airlift provided the answer. Headquarters MAC immediately ruled out an airland operation because whenever anything moved at the Beirut Airport it was shelled. Other delivery options had carried attendant risks that made them less than satisfactory as well. Based on this assessment, the theater commander in chief decided to have MAC move the supplies by air to a Mediterranean port, and from there they were transported by sealift into Beirut.

Major General William E. Overacker, then Commander of MAC's 322d Airlift Division in Europe and senior officer in charge, remarked about the execution of RUBBER WALL:

One thing that this episode taught me, first of all, was the magnificent response of our people when we call upon them to do things in peacetime even if they are high-risk I decided at a certain point to cut off the flow (of airlift from Germany to points eastward]. Because the crews were motivated, they were sticking with the airplanes, they really wanted to push to do that, so I decided to go out on the ramp myself and advise the crews of what I was doing. I told them that I wanted to put them to bed for crew rest and get them up the next morning and start the operation again. I remember this one crew commanded by a woman I walked up to her as the aircraft commander and said, 'I'm going to put you to bed and start again tomorrow because by the time you can get there, according to your flight plan, it's going to be after dark, and we're not going to allow operations into Cairo West after dark.' She looked up and down, thought about it a minute, took the flight plan out of her flight suit pocket, and said, 'You know, General, the last time I looked, this flight plan said that I should cruise at Mach .74. The last time I read my -1, this is a Mach .825 airplane. If you just won't get in my way, I'll be in Cairo by dark.' I've not forgotten that. I let her go, and she was there by dark.

In the end, Major General Overacker noted, "the Marines were resupplied, and it all turned out well, nobody was hurt, no airplanes were bent, the whole operation went very well."

PACKARD AND GOLDWATER STUDIES

Two studies during the mid-1980s directly precipitated organizational realignments that fundamentally affected the Military Airlift Command. In June 1985, President Ronald Reagan asked former Defense Under Secretary David Packard to chair a Blue Ribbon commission to assess the management and organizational efficiency of the Defense Department and to make recommendations for improvement. Adverse publicity about military procurement concerned the President. The commission's 15 members, who included four retired flag officers, studied several areas: national security planning and budgeting; military organization and command, organization and procedures for organization; and the accountability of government and industry. Many of the recommendations focused on strengthening the authority of unified and specified commanders and the Chairman of the Joint Chiefs of Staff. The Packard

The command also airlifted victims of two tragic terrorist bombings in Beirut in 1983. On 18 April a bomb detonated at the American Embassy in Beirut killed 57 and injured about 100 others. A MAC C-9A aircraft from Rhein-Main Air Base, Federal Republic of Germany, moved two patients for special treatment. The second bombing occurred at the Marine Barracks in Beirut on 23 October 1983. A total of 241 Marines died in this act of terrorism with another 78 injured. The Defense Department called upon the Military Airlift Command to aeromedically evacuate the injured; these missions were executed between 23 October and 16 November using 8 C-141 and 12 C-9A aircraft. In addition, between 29 October and 4 November, MAC flew another 10 C-141 missions to return the bodies of the 241 Marines to the Defense Department's mortuary at Dover Air Force Base, Delaware.

The Military Airlift Command continued to support the Marine deployment in Beirut in 1984. The command flew missions every few days to airlift needed supplies. Many of these terminated at one of the Mediterranean ports, and from there sealift moved the cargo on to Lebanon. When the United States officially ended its participation in the Lebanon peacekeeping force on 30 March 1984, most of MAC's activities supporting the deployed Marines ended as well.

SOURCE: History of the Military Airlift Command, 1 January-31 December 1983 (Scott AF8, IL: Office of MAC History, 1984), pp 118-123, 267-269; History of the Military Airlift Command, 1 January-31 December 1984 (Scott AF8, IL: Office of MAC History, 1986), pp 164-166; "U.S. Withdrawing Its Military Force on Lebanon Coast," New York Times, 31 March 1984, p 1A; "Lebanon Takes its Toll," Time, 12 September 1983, pp 30-33; "Helping to Hold the Line," Time, 3 October 1983, pp 26-36; "Deeper into Lebanon," Time, 26 September 1983, pp 12-15; Captein T. Devis, "Recent Events in the Middle East: Continuing Dilammas for US Policy," Neval War College Review, (July-August 1983), Vol 36, pp 4-15; Orel History with Major General William E. Overacker, USAF (Retired) Military Airlift Command Orel History Program, Interview #3 (Scott AFB, IL: Office of MAC History, 1990), pp 27-32.

Commission also suggested forming a new unified command to better manage land, sea, and air transportation assets.²⁸

About this same time, in January 1985, Senators Barry Goldwater (R-AZ), Chairman of the Senate Armed Services Committee, and Sam Nunn (D-GA), the committee's ranking minority member, endorsed a comprehensive staff study of the Defense Department's organization and decision-making process. The review, the first since the Eisenhower Administration, sought to strengthen the Department of Defense by focusing on performance deficiencies in the department and Congress. The committee investigated ten broad areas, including the organization of the Department of Defense, the Joint Chiefs of Staff, and unified and specified commands, and concluded that the Defense Department's lack of organizational focus on strategic goals or major missions inhibited strategic planning. Like the Packard Commission's recommendations, the Armed Services Committee staff's final report, entitled Defense Organization: The Need for Change and issued in October 1985, purposed to strengthen the authority, stature, and support of the joint organizations, especially the Joint Chlefs of Staff and the unified commanders. The popular magazine Armed Forces Journal called the study "the single most important body of work on national security matters done so far this century."20

After receiving the interim report from the Packard Commission, President Ronald Reagan accepted virtually all of the group's recommendations and incorporated the appropriate ones into a directive issued on 2 April 1986. He also urged Congress to enact into law those changes that required legislation, including the formation of a new unified command for air, land, and sea transportation. Senator Goldwater and Representative William Nichols (D-AL) of the House Armed Services Committee co-sponsored a bill that included many of the recommendations of both studies. The Goldwater-Nichols Department of Defense Reorganization Act of 1986 quickly passed both houses of Congress, and President Reagan signed it on 1 October 1986. The measure not only strengthened the office of the Joint Chiefs of Staff and the authority of the unified and specified commanders but also created unified special operations and transportation commands.³⁰

MAC AND SPECIAL OPERATIONS FORCES

The idea for unification of all USAF helicopter resources began to germinate shortly after the American withdrawal from Vietnam. Although the proposal gained acceptance at Headquarters USAF in the late 1970s, the command's leaders opposed consolidating helicopter missions and assets. Some senior MAC and Aerospace Rescue and Recovery (ARRS) officers perceived the rescue forces to have a "white hat" image as heroes flying humanitarian or lifesaving missions. As the "good guys," air rescue had little trouble securing permission from foreign governments for overflight clearances or the use of bases during exercises. If the service began flying special operations missions, MAC officials argued, its image and status could change.³¹

The logic of the argument for consolidation soon caused these same high-ranking officers to change their minds. They realized that a combined helicopter force could cut costs, provide a pool of expertise, and avoid duplication of equipment and personnel. So when General Lew Allen, Jr., USAF Chief of Staff, visited Headquarters MAC in 1979, MAC and ARRS senior officials briefed him on the proposed unification of helicopter resources. They noted that at that time there were not enough helicopters to meet all of the Air Force's mission requirements and that congressional funding for additional equipment seemed unlikely. The most obvious solution was to combine the missions and assets of combat rescue, the special operations forces (SOF), and tactical air control systems (TACS) support. Bringing these organizations together under a single manager would increase available assets for SOF and TACS; unify administrative control while leaving operational control under the Air Force component commander in the unified command; and retain Individual missions while allowing the commander to augment other missions to meet peak demand.32

Headquarters MAC leaders reasoned that a single manager could provide the greatest number of aircraft to meet any theater commander's needs. Since ARRS already controlled three-fourths of the combined helicopter force and had proven its ability to support worldwide demands, command officials concluded that ARRS should manage all USAF helicopter forces. The Tactical Air Command (TAC) senior staff disagreed, suggesting that the single manager idea was not only counterproductive for Rescue, SOF, and TACS, but it was also not a practical solution to the documented rotary-winged aircraft shortfall. The TAC staff also pointed out that since SOF and TACS trained with the Army's Special Forces, their combat tactics were not compatible with air rescue.³³

Other events occurring halfway around the world at about this time shifted the issue from just helicopter forces to the broader focus of special operations forces, which included all remaining helicopter and some specialized aircraft as well. Future discussions would include all SOF assets. After the failed rescue attempt of the 53 Iranian-held hostages, the Department of Defense, congressional, and other key government officials began considering how best to revitalize SOF.34 The Joint Chiefs of Staff commissioned a Special Operations Review Group in May 1980 to investigate all aspects of the Iranian hostage rescue mission. The group found numerous problems in the mission's planning and execution and recommended that the Joint Chiefs of Staff create a Counterterrorist Joint Task Force as a permanent field agency with assigned personnel and assets.35

In addition, two other important actions took place which facilitated SOF's consolidation under MAC. The first, the Department of Defense-

commissioned Air Force 2000 Study, presented a comprehensive look at the Air Force's needs and resources in the year 2000. Because conflicts could range from political unrest to small-scale regional confrontations, the study emphasized that the Air Force's future mission must include counter-terrorist counter-insurgency operations, crisis and augmentation of friendly air forces, and special operations capabilities.36 The study concluded: "To provide the organizational support necessary to enhance special operations, the Air Force should consider placing it under HQ USAF as a Special Operations Agency, or within a Major Command as a numbered air force."37

The second event was a functional management inspection by the USAF Inspector General's office. Because of the unsuccessful Iranian hostage rescue mission and other changes in Defense Guidance, the National Command Authority renewed its emphasis on the nation's special operations capabilities. In light of the inspection results, the Air Staff directed General Wilbur Creech, Commander of TAC, and General James R. Allen, Commander in Chief of MAC, to form a joint study group to examine the various proposals and then brief the Air Staff on consolidating special operations and combat rescue under a single manager. Military Airlift Command officials argued that placing these assets under MAC would provide more efficient and responsive management of scarce special operations and combat rescue resources.³⁸ General Duane H. Cassidy, then MAC Deputy Chief of Staff for Operations, noted in an interview in 1989 that the biggest problem then was personnel. The people in special operations competed with the fighter or the bomber force for promotions and career progression. Since MAC already had the "C-130 or helicopter people from rescue in MAC, we were the only ones who really could take care of them and make sure they had a good career. We had the biggest pool of people to put into that field, so it made sense that we should run the SOF." General Cassidy concluded: "The case was compelling; the case sold itself." Between 7 and 14 September 1982, Generals Creech and Allen discussed the proposed consolidation and agreed that MAC should be the single manager of the Air Force's special operations assets. General Cassidy recalled, "We finally got the SOF when General Creech . . . said, 'I agree with the position. I take away my objections. I will give you the special ops forces.""39

Generals Creech and Allen then authorized members of their staffs to form a Joint Organizational Working Group to create the new organization.⁴⁰ The working group met throughout September and October 1982 and quickly decided that special operations would be a separate air division coequal with ARRS under a numbered air force headquarters located at Scott Air Force Base. Brigadier generals

would command the Aerospace Rescue and Recovery Service and a special operations air division, reporting directly to the numbered air force commander. The ARRS detachments supporting the United States Air Forces in Europe (USAFE) and Pacific Air Forces (PACAF) headquarters would become numbered air force detachments and would fly both combat rescue and special operations missions. The special operations air division would locate at Hurlburt Field, Florida, and would include the following field units: 1st Special Operations Wing, Hurlburt Field; 1st Special Operations Squadron, Clark Air Base, Republic of the Philippines; 7th Special Operations Squadron, Rhein-Main Air Base, Federal Republic of Germany; and a special operations detachment at Howard Air Force Base, Panama, Several Air National Guard and Air Force Reserve units with special operations missions would also join the new air division.41

On 10 February 1983, the Air Force officially constituted Headquarters Twenty-Third Air Force

(effective on 1 March 1983) from Headquarters ARRS and assigned to it the 2d Air Division to manage special operations. At the same time, Headquarters USAF removed the 1st Special Operations Wing from TAC, the 1st Special Operations Squadron from PACAF, and the 7th Special Operations Squadron from USAFE and placed them in MAC, effective with the activation of the Twenty-Third Air Force and the 2d Air Division.⁴²

The Military Airlift Command's control over the special operations forces was short lived, however. Years of study by congressional committees had convinced senior government officials of the need for a single joint service command to handle special operations. By the summer of 1985, moreover, Congress had recognized that even though the Defense Department had made sweeping changes in the structure of SOF during the preceding four years, serious shortcomings still existed. When House and Senate committees met to resolve their differences



over the 1986 and 1987 military appropriations bills, they also directed the Department of Defense to report on the "feasibility of creating a single command structure for Special Operations."⁴³

Although the Department of Defense, Headquarters USAF, and MAC all recommended against a separate command structure for special operations, Senator William S. Cohen (R-ME) advocated creating a unified special operations command and obtained considerable support for this proposal in Congress. Cohen pointed out that even though the SOF aircraft assets averaged 20 years of age the Military Airlift Command ranked special forces airlift 59th on its list of funding priorities.** Senators Sam Nunn and Barry Goldwater of the powerful Armed Services Committee supported Cohen's position. In a 29 January 1986 joint letter to Defense Secretary Caspar W. Weinberger, they wrote: "It is discouraging to note that today we have exactly the same number of MC-130 Combat Talon aircraft (14) and AC-130A/H gunships (10/10) as we had at the time of Desert One, and two fewer HH-53 Pave Low helicopters than we had in May 1980 (7 today compared with 9 in 1980)."45

This fact prompted Senators Cohen and Nunn to introduce a bill on 15 May 1986 to create a unified special operations command. "While the United States must remain well-prepared to deter nuclear and conventional warfare, the day-to-day challenge for the

foreseeable future seems to place a premium on our ability to conduct special operations," said Senator Cohen. He added that the nation's SOF was "at the mercy of interservice rivalries and a military bureaucracy in which support for special operations runs counter to mainstream thought and careers."46 On 6 August 1986, the full Senate unanimously approved the Cohen-Nunn proposal as an amendment to both the Fiscal Year 1986 Defense Authorization Act and the Fiscal Year 1987 Appropriations bill. "It has been six years since the tragedy in the deserts of Iran, and the U.S. still does not have the capability to perform a similar mission," Senator Cohen reflected. Moreover, "at this time, U.S. special forces are still scattered among the Services, badly underfunded and lacking a clear and coherent mission."47 As a result, the 1987 National Authorization Act included a provision for a unified special operations command to be operational by 1 May 1987. The command would control all stateside-based SOF units, develop strategy, train assigned forces, design and acquire equipment unique to SOF, outline intelligence requirements, and monitor assignments and promotions. Major theater commanders overseas would continue to control special operations units in their areas of responsibility.46

The Department of Defense established the United States Special Operations Command (USSOCOM) at MacDill Air Force Base, Florida, on



The AC-130H Spectre Gunship with its side-firing weapons system, air refueling capability, and infrared and low light level television direction system.

16 April 1987 and formally activated the new command on 1 June 1987. The United States Special Operations Command would furnish combat-ready special operations forces to quickly reinforce other unified commands and would plan and execute special operations directed by the President or the Secretary of Defense. The Army's 1st Special Operation Command, the Navy's Naval Special Warfare Command, and MAC's Twenty-Third Air Force became the service components of the new command.⁴⁹ During 1986 and 1987, the Military Airlift Command reorganized the Twenty-Third Air Force by combining its aircraft into four operational wings; relocating its headquarters from Scott Air Force Base to Hurlburt Field; and creating three operating locations for planning and liaison purposes. The command also inactivated the 2d Air Division.⁶⁰

Since Congress had focused only on the Twenty-Third Air Force's special operations mission, General Cassidy worked throughout 1988 and 1989 to streamline the numbered air force and to divest it of non-special operations organizations and responsibilities. In February 1989, he announced that the command would remove the search and rescue assets from the Twenty-Third. On 1 August 1989, Headquarters MAC reestablished the Air Rescue Service as a separate service with the 41st Rescue and Weather Reconnaissance Wing at McClellan Air Force Base, California, as its core. General Cassidy also planned to reassign the 375th Aeromedical Airlift Wing and the Scott Medical Center from the Twenty-Third, and on 1 February 1990, these two units became part of MAC's Twenty-Second Air Force.⁵¹

On 30 April 1990, Headquarters USAF announced the establishment of an Air Force Special Operations Command (AFSOC). The new command, formed from elements of MAC including the Twenty-Third Air Force, would be the Air Force component of USSOCOM. With Major General Thomas A. Eggers as commander, AFSOC became operational on 22 May 1990 with headquarters at Hurlburt. The Military Airlift Command's relationship with special operations had come full circle.

MAC AND THE UNITED STATES TRANSPORTATION COMMAND

Even before the passage of the Goldwater-Nichols Act in 1986, MAC officials and other military leaders had weighed the advantages of unifying all transportation assets under one interservice command. In 1977, the Joint Chiefs of Staff had authorized the *Transportation Operating Agency Organization Alternatives Study* to consider the propriety of a special command to manage all Department of Defense transportation functions. The study had concluded, however, that MAC should remain a specified command because of its global and interagency mission. And in 1982, Congress enacted legislation specifically prohibiting the establishment of a unified transportation command.⁶²

Although Defense Secretary Weinberger and some members of the military community continued to support a unified transportation command initiative, they made little headway until the Packard Commission issued its interim report on 28 February 1986. These findings recommended creating "a single unified command to integrate global air, land and sea transportation."153 The final report included the same suggestion. As a result, in the fall of 1986, Congress repealed its ban on a unified transportation command included the Packard and Commission's recommendation in the Goldwater-Nichols Department of Defense Reorganization Act. On 31 December 1986, Secretary Weinberger agreed to establish a unified transportation command, and on 18 April 1987, President Ronald Reagan approved the activation of the United States Transportation Command (USTRANSCOM) at Scott AFB, Illinois.⁶⁴

General Cassidy acted as the executive agent for USTRANSCOM from its establishment until its formal activation on 1 October 1987 when he became the "dual-hatted" United States Transportation Command Commander in Chief and MAC Commander in Chief. The Navy's Military Sealift Command joined MAC and the Army's Military Traffic Management Command as service components of the new unified command.⁵⁵

The Military Airlift Command retained its specified command status until 1 October 1988 when the United States Transportation Command became fully operational. With the loss of MAC's specified command status, three areas of responsibility transferred to the new unified command. First, USTRANSCOM assumed operational command of MAC's C-5, C-141, United States-based C-130, WC-130, and WC-135 aircraft. Second, the new command also exercised operational command of mobilized Air Reserve Component transport assets. Third, mobilized HC-130 and combat search and rescue helicopter aircraft transferred either to USTRANSCOM or USSOCOM.⁵⁴

The loss of specified command status, however, had little impact on many MAC activities. Several functions, such as the 89th Military Airlift Wing, Air Weather Service, Aerospace Audiovisual Service, operational support airlift assets, and aeromedical evacuation forces, which were "service-unique" and not part of MAC's specified command mission, continued without change. The command's theaterbased forces, including intratheater airlift, special operations, operational support airlift, weather support, visual information, combat rescue, and aeromedical airlift forces assigned to the operational

SIGNIFICANT HUMANITARIAN AIRLIFT OPERATIONS

1980

Earthquake relief to Terceira Island, Algeria, and Italy

Cuban refugees to processing centers throughout the United States

1**981**

52 American hostages returned to the United States

1982

Foodstuffs to famine-stricken areas of Chad

Aid to earthquake victims in the Yemen Arab Republic

1983

Humanitarian assistance to El Salvador

Relief to earthquake victims in Turkey

1984

Medical supplies and equipment for AIDS research in Zaire

Relief assistance to Ethiopian refugees in Sudan

1985

Famine relief to Niger, Mali, and Ethiopia

Aid to earthquake victims in Mexico City

1986

Emergency assistance to typhoon-ravaged Solomon Islands

Food, medicine, and supplies to El Salvador earthquake victims

1987

Aid to earthquake victims in Ecuador

Surplus DOD food, clothing, and medicine to Chad and Thailand

1988 Aid to Bangladesh after floods left 30 million homeless

Earthquake relief to Soviet Armenia

1989

Cleanup support of Exxon Valdez oil spill in Alaska

Relief to east coast and Caribbean Islands after Hurricane Hugo

Assistance to San Francisco area after earthquake

1990

Insecticides and medical supplies to Nicaragua

Aid to displaced persons in Jordan after Iraqi invasion of Kuwait

control of theater commanders or the senior Air Force commander, also remained unchanged at this time.⁵⁷

While these organizational changes brought new challenges to the Military Airlift Command, the command continued to fulfill its mission responsibilities. There were several widely-publicized humanitarian relief efforts as well as the URGENT FURY contingency. Changing relations with the Soviet Union again demonstrated airlift's uniqueness as an instrument of diplomacy. The command's resources would also support two major contingencies: Operation JUST CAUSE, an incursion into Panama to depose strong-man Manuel Noriega; and Operation DESERT SHIELD, into Saudi Arabia to oppose Iraq's agression in the Middle East.

AIRLIFT TO THE SOVIET UNION: SEMIPALATINSK-INF-ARMENIA

Mikhail Gorbachev, who became the leader of the Soviet Union in 1985, proclaimed an era of openness or Glasnost in his country. Glasnost led to a series of summit conferences by Gorbachev and President Ronald Reagan, and relations improved between the two countries. Nothing illustrated the shift in attitudes more than the missions the Military Airlift Command began flying in 1988 to areas inside the Soviet Union previously closed to the West. Command aircraft carried Department of Energy scientists and equipment to a Sovlet nuclear test site at Semipalatinsk; airlifted Intermediate-Range Nuclear Forces (INF) Treaty inspectors to Moscow and Ulan-Ude in Central Siberia; and provided earthquake relief supplies to Yerevan, Soviet Armenia. On the latter missions, MAC crews flew into the USSR without Soviet navigators aboard for the first time since World War II.

The first of these dramatic operations began in April 1988 when a MAC C-5 carried American scientists and test equipment from the United States to Semipalatinsk, in south central Asia, the Soviet Union's center for the underground testing of nuclear weapons. Events leading up to this flight began in September 1987 when American Secretary of State George Schultz and Soviet Foreign Minister Eduard Schevarnadze met in Geneva, Switzerland, to discuss monitoring nuclear testing. They agreed that their two countries would plan a joint verification experiment (JVE). Premier Gorbachev and President Reagan endorsed the idea.⁵⁸

After subsequent negotiations and a preliminary visit by a Department of Energy (DOE) team to the Soviet nuclear test site in January 1988, the two governments agreed that the DOE would ship equipment to Semipalatinsk so that American nuclear scientists could demonstrate the capabilities of their monitoring equipment to the Soviets. To airlift the equipment and American scientists to the Soviet Union, the Department of Energy contracted for one C-5 mission in April 1988 and five more in May. The DOE later expanded its airlift requirement, and additional missions were added.⁵⁹

The first DOE mission, which landed on 18 April, was typical of those that followed. A C-5 from Dover Air Force Base, Delaware, flew to Indian Springs, Nevada, and picked up drilling rigs, monitoring equipment, and several Department of Energy scientists. The Galaxy then returned to Dover, changed crews, and proceeded on to Rhein-Main Air Base, Federal Republic of Germany. At Rhein-Main an airlift control element, a fresh crew with diplomatic clearance to fly into the Soviet Union, and two Soviet Aeroflot navigators boarded the aircraft. Captain Michael Eastman and his crew flew the C-5 on the eight-hour trip from Rhein-Main to Semipalatinsk. This was the first of eight historic missions between 17 and 21 April 1988.⁶⁰ Although they provided neither weather forecasts nor maps, the Soviets issued precise operational instructions and restrictions for the mission. The two Aeroflot crewmembers helped with air traffic control, weather updates, and technical data. During the flight, however, they informed Captain Eastman that although each had thousands of flying hours, neither had ever flown into Semipalatinsk. Even so, the C-5 landed without incident at 1000 local time on 18 April 1988. The airlift control element personnel unloaded the aircraft using equipment they had brought with them. Although the Soviets allowed six hours and fifteen minutes for unloading, refueling, and reloading the airlift control element equipment, the MAC team finished their work in three hours.⁶¹

After American inspectors completed their examination at the test-site in late April, the Department of Energy requested that the Military Airlift Command airlift nearly 500 tons of testing equipment and 155 scientific support personnel to Semipalatinsk in early May. Beginning 3 May, one C-5 departed daily for five days, either from Travis Air Force Base, California, or Dover; proceeded to Indian Springs; loaded the Department of Energy equipment; and then flew to Dover where a fresh crew took over the controls. The second crew made the flight leg from Dover to Helsinki, Finland, which served as the staging point for the May flights. At Helsinki, another crew with diplomatic clearance boarded the aircraft and flew on to Semipalatinsk.⁸²

The Military Airlift Command's efforts bore fruit when on 14 September 1988 Soviet and American scientists evaluated the equipment during an underground test. A short time later, the Department of Energy conducted a similar test at Indian Springs with Soviet scientists present. Captain Eastman and his crew received the 1988 Mackay Trophy for the professional manner in which they handled the first of the sensitive DOE missions to Semipalatinsk.⁴³



Loading JVE equipment aboard a MAC C-5B transport at Indian Springs, Nevada, bound for the Soviet Union's nuclear weapons test site at Semipalatinsk, May 1988.



On a JVE mission to Semipalatinsk, "Ambassador" Major John L. Cirafici made friends with two school boys, one Kazakh the other Russian, Lenin Square.

The Intermediate-Range Nuclear Forces Treaty, which President Ronald Reagan signed in December 1987 and the Senate ratified in 1988, committed the United States and the Soviet Union to destroy their stockpiles of intermediate-range delivery systems (those with ranges of approximately 600-3,400 miles) within three years, with a follow-on ten-year mutual verification program. While satellites and other electronic surveillance measures were the primary method of verifying the compliance with the treaty, each party also planned to conduct on-site inspections of production facilities until May 2001. The Military Airlift Command provided the air transportation for the Soviet inspection teams within the United States and carried American inspectors to the ports-of-entry in the Soviet Union.⁶⁴

During the baseline period, 1 July through 29 August 1988, each party examined missile storage and production facilities to confirm the data exchanged on numbers and components. Inspection teams then used this information to monitor treaty compliance. Under the terms of the agreement, each party could inspect each of the designated sites once during the 60-day baseline period. The Americans had 26 sites (later expanded to 31) and the Soviets 133. The large number of Soviet sites forced the Defense Department's On-Site Inspection Agency (OSIA) to visit more than one site each day. Fortunately, some of the Soviet locations contained several sites.⁶⁵

Military Airlift Command C-141s met the Soviets at the two American entry points, Dulles International Airport, Washington, DC, and Travis and carried them to the various weapons assembly and storage locations throughout the United States. After conducting a review, the Soviets returned via Starlifters to their port-of-entry. Other C-141s supported the Soviet portal-monitors on their flights to and from the Pershing II assembly plant at Magna, Utah. Additionally, MAC C-141s carried American inspectors to the staging points-Ulan-Ude Mukhino airfield in Central Siberia and Seremt'yevo International Airport in Moscow-for entry into the Soviet Union, Command C-130s also transported Soviet Inspectors from Rhein-Main to various Allied sites in Europe. During the 60-day baseline period, MAC flew 111 missions and airlifted 185 teams of 10-12 members each.88

Thereafter, MAC continued to fly missions in support of the treaty but at a slower pace. As bases and missile support facilities became non-operational, each party conducted close-out inspections to ensure that treaty-prohibited activity had ceased. The treaty also allowed both sides to make short-notice inspections at active and closed missile sites. Finally, the INF agreement permitted "portal-monitoring." The United States could continuously monitor the Soviet SS-25 ICBM final assembly facility at the Votkinsk Machine Building Plant in the Ural Mountains; the Soviets would watch the Pershing II assembly plant at the Hercules Plant 1, Magna, Utah. From the end of the baseline period on 30 August 1988 through 31 October 1990, MAC aircraft transported 619 Soviet and American teams on 395 missions: 232 in Europe, 61 in the Pacific, and 102 within the continental United States.⁹⁷ The Military Airlift Command functioned as an instrument of diplomacy by supporting both American and Soviet inspectors in their efforts to verify compliance with the INF treaty.

The most dramatic missions the Military Airlift Command flew into the Soviet Union in 1988 and 1989 carried disaster relief to Armenia. In the past, the Soviets had always rejected the United States' offers of humanitarian assistance following natural disasters, but on 7 December 1988 when a massive earthquake that registered 6.9 on the Richter scale struck Armenia, the Soviets accepted help. In part, this was prompted by the extent of the devastation – some 25,000 persons dead and more than 500,000 homeless – but the relief effort was also symbolic of the lessening of tensions between the two superpowers.⁴⁸ The American people responded Immediately with the greatest outpouring of aid to the Soviet Union since World War II. On the evening of 9 December 1988, the Department of State requested that the Military Alriift Command transport rescue teams and supplies from Andrews Air Force Base, Maryland, to the Armenian Republic's capital of Yerevan. Two C-141s arrived in Armenia on 11 December: the first carried 19 professional rescue specialists, 2.5 tons of rescue equipment, 750 wool blankets, and 100 tents; the second airlifted 33 tons of tents, medical supplies, shovels, picks, and 4.1 tons of Navy surgical supplies. For the first time since 1944, the aircraft on these missions carried no Soviet observers; the aircrew maintained command and control using high frequency radios.⁵⁹

Zvartnots Airport, at Yerevan, was undamaged by the quake and served as the hub for the relief effort, but hundreds of military and civil aircraft from many nations clogged the runways and ramps. Because of the congestion and a previous minor accident on a taxiway, the MAC senior staff decided against flying C-5s directly to Yerevan. Instead, the Galaxys traveled to Incirlik Air Base, Turkey, carrying medical and surgical supplies, clothes, blankets, plastic sheeting, tents, water jugs, and plastic modular shelters provided by the Agency for International Development and the Office of Foreign Disaster Assistance. From Incirlik, C-141s shuttled the supplies to Zvartnots. In the initial stage, MAC flew seven C-141 missions into Armenia in December 1988, with eight more in January and February 1989. The command made one additional flight directly to Yerevan in December 1989, when a C-5 airlifted 12 four-wheel-drive Dodge trucks each loaded with 50 general purpose field tents, plus blankets, rubber boots, and portable tent heaters.70

The most publicized of all the earthquake relief missions to Armenia was the flight that brought 37 seriously injured children and young adults to the United States for treatment at ten American hospitals. Project HOPE, a private, nonprofit, International health agency, arranged for the young peoples' trip and treatment. A team of eight Project HOPE physicians visited Yerevan area hospitals and selected the patients who ranged in age from 30 months to 25 years. The team looked for people with open wounds, bone infections, or double amputations. A C-141, in Europe to support the INF On-Site Inspection Team, airlifted the young patients first to Rhein-Main and then on to Andrews. A MAC C-9 and several privately chartered aircraft then transported the young patients and their escorts to hospitals throughout the country." The American people's compassion, personified by the MAC crews who delivered the relief supplies and transported the injured Armenians for treatment, helped to solidify the improved relations between the United States and the Soviet Union.



Zvartnots Airport at Yerevan served as the hub for the international relief effort.



A Soviet soldier standing guard over relief supplies with a MAC C-141 in the background, Zvartnots Airport.



First Lady Barbara Bush greeted the Armenian children upon their arrival at Andrews Air Force Base.

OPERATION JUST CAUSE: PANAMA

From 17 December 1989 through 14 February 1990, all branches of the United States Armed Forces took part in a large-scale, complex military offensive in Panama. Operation JUST CAUSE was the largest American combat operation since Vietnam. The United States considered the isthmus of Panama and the canal that bisects that nation of vital interest since Panama gained its independence from Colombia in 1904. In recent years, animosity between the United States and Panama escalated, culminating in an American indictment against the Panamanian strongman Manuel Noriega on drug trafficking charges in February 1988. The United States government's political and economic sanctions failed to force Noriega from power but instead drew threats and violence against Americans living and working in his country and in the Canal Zone.

Friction between the two countries became especially acute around the time of the Panamanian presidential election on 7 May 1989. Following the overwhelming defeat of his hand-picked candidate, Noriega nullified the elections causing thousands of Panamanians to march and riot in protest. Noriega's personal army, the Dignity Battalion,⁷² reacted with force, including assaulting the victorious presidential candidate, Guillermo Endara and his running mates.⁷³

President George Bush recognized that the violence and coercion surrounding the election posed a serious threat to the safety of the Panama Canal and the 51,000 Americans who lived in Panama. Accordingly, he decided on 11 May 1989 to deploy a brigade-size security augmentation force to ensure the protection of American lives. Between 11 and 18 May 1989, MAC used 34 C-5, 39 C-141, and 2 commercial L-1011 missions, airlifting 2,679 soldiers and Marines and 2,950 tons of cargo to Panama, to complete the highly-publicized Operation NIMROD DANCER.

That same day, 11 May, President Bush ordered some 5,000 dependents living among the civilian community to move onto a military facility by 12 May or to return to the United States.⁷⁴ During the sevenweek period from 16 May through 29 June 1989, Operation BLADE JEWEL airlifted a total of 5,915 persons on 49 commercial, C-5, and C-141 missions, from Howard Air Force Base, Canal Zone, to Charleston International Airport, South Carolina.⁷⁵

Following a failed coup attempt against him on 3 October 1989, Noriega acted even more aggressively to eliminate opposition and consolidate his authority. As conditions in Panama deteriorated in the ensuing weeks, several events occurred in rapid succession, causing President Bush to order military action.⁷⁸ On 15 December 1989, at Noriega's instigation, the Panamanian National Assembly declared that a state of war existed between Panama and the United States and enacted measures to repel foreign aggression. The following night, 16 December, a member of Noriega's Panamanian Defense Force, the country's combination military police/internal security force, killed an American Marine officer. The defense force also arrested, beat, and threatened a United States Navy lieutenant and his wife, who witnessed the killing.⁷⁷

The attempted coup prompted American leaders to solidify plans for military intervention. Planning for the Military Airlift Command's participation intensified when representatives of MAC, TAC, and SAC attended an interservice meeting at Fort Bragg, North Carolina, between 5 and 9 October 1989. The Air Force's major operational commands perfected a series of invasion plans that included simultaneous airdrop/airland operations. Headquarters MAC determined that the command's airlift system required 60 hours to marshall the crew force needed for the invasion: approximately 36 hours to locate the crews and get them to onload locations; and another 24 hours for mission planning, preparation, and en route flying time.⁷⁴

Fortunately, Operation JUST CAUSE began at the start of the Christmas holiday season, so MAC had fewer scheduled commitments. Most of the 63 C-141s, 21 C-130s, and 2 C-5s the command needed to support the Army's invasion force were in place at their home stations. In preparation for a *coup de main* in Panama, MAC aircraft from throughout the airlift system prepositioned troops and equipment the day before at the staging locations: Pope Air Force Base, North Carolina; Lawson and Hunter Army Air Fields, Georgia; and Charleston Air Force Base, South Carolina.⁷⁹

Despite complications from fog and icing in the loading and staging areas, 12 C-141s and 4 Special Operations Low Level (SOLL) II C-130s began airdropping paratroopers and heavy equipment from the 75th Ranger Regiment on Torrijos/Tocumen Airport near Panama City early on 20 December 1989.⁸⁰ At the same time, 15 C-130s executed an airdrop on Rio Hato, a major Panamanian Defense Force base and airfield. Within a few hours, ground forces had secured Rio Hato, and SOLL C-130s commenced landing to deliver additional equipment and evacuate wounded.⁸¹

Special operations forces then assigned to MAC's Twenty-Third Air Force also played a critical role in the successful execution of JUST CAUSE. At H-hour, when the operation began, Twenty-Third Air Force had 26 aircraft committed to offensive air operations: 7 AC-130s, 7 HC-130s, 3 MC-130s, 4 MH-60s, and 5 MH-53s. The C-130s attacked ground targets and provided tactical support for the Army Rangers while the MH-53 and MH-60 helicopters deployed and repositioned forces in Panama City. All of the United States-based AC-130s participated in the operation.⁸² Contingency plans called for two C-5s to land at the Torrijos/Tocumen airport, after ground troops had secured it, and to provide a refueling platform⁸³ in the event enemy action rendered the Howard runway



A MAC C-130 landing at Rio Hato during Operation JUST CAUSE.

unusable. The *Galaxys* also deployed an airlift control element (ALCE) to Torrijos/Tocumen to manage the airlift flow of follow-on support forces.⁸⁴ Since Panamanian Defense Forces made no assault on Howard and the base's runway remained open, the C-130s of the assault force refueled there. Consequently, the C-5s landed at Howard and deployed the ALCE to Torrijos/Tocumen airport a few hours later. Working throughout the night of 20-21 December, the MAC ALCE and air traffic controllers at Torrijos/Tocumen had the airport in full operation by the time the security forces arrived on the twentyfirst.⁸⁶

Even as United States forces were securing Torrijos/Tocumen, Rio Hato, and other military objectives, President Bush made a television/radio broadcast to the American people. He outlined events in Panama over the past two years and reminded the nation that he had not taken the decision to invade lightly. The President reported that the fighting was still underway and that some American lives had been lost. He went on to say that the United States had restored the legitimate government of President



HC-130 (left) and C-130s on the ground with an Army OH-6 flying above at Torrijos/Tocumen airport.

Guillermo Endara, duly elected on 7 May 1989. President Bush told the nation he had directed the Secretary of the Treasury to lift economic sanctions against Panama in respect for the Endara government. Finally, the President said he was returning the American Ambassador to Panama and taking appropriate action to achieve an orderly release of Panamanian assets frozen in the United States.³⁶



Unloading an Army helicopter from a MAC C-5 at Howard Air Force Base during Operation JUST CAUSE.

On 21 December, the day after MAC completed its participation in the pre-dawn assault, the command airlifted an additional 2,500 troops to Panama. Many of the soldiers were security policemen sent to help restore order amid widespread looting. Later that day, other MAC aircraft took augmentation forces assigned to the 7th Infantry Division to Torrijos International Airport.⁶⁷ Military Airlift Command transports also evacuated military personnel wounded during JUST CAUSE from Howard to Kelly Air Force Base, Texas, after they had received their initial treatment in Panama. Aeromedical evacuation missions lasted from 20 December 1989 through 5 January 1990.⁸⁸ During this period, 257 patients were flown from Panama to Kelly aboard 1 C-130 and 8 C-141 missions. Included among the wounded were 216 litter and 41 ambulatory patients.⁸⁹

Although having earlier boasted that he would never be taken alive, Noriega asked for and received asylum at the residence of the Vatican representative in Panama on Christmas Eve. American soldiers and tanks quickly surrounded the residence of the Papal Nuncio and blocked all approaches to the area. 40 After failing to negotiate safe passage to a neutral country, Noriega left his sanctuary on 3 January 1990 and surrendered to American forces. An Army UH-60 Black Hawk helicopter flew him to Howard, where Drug Enforcement agents arrested him on the outstanding warrant." A MAC MC-130E then carried the deposed strong-man to Homestead Air Force Base, Florida, and delivered him to waiting federal officials, who whisked him away to the federal courthouse in Miami for booking and incarceration.*2

The Military Airlift Command's role in restoring democracy in Panama consisted of more than military action. Noriega was still in the Vatican embassy when the United States began its large-scale assistance program for the Panamanian people. The first of many humanitarian airlift missions commenced two days after Christmas. By the time this airlift ended on



Drug Enforcement agents with ousted dictator Manuel Noriega in custody aboard a MAC MC-130 for the flight to the United States, January 1990.

3 January 1990, 8 C-5s and 14 C-141s had transported three tons of medical supplies, 10,000 blankets and sheets, several tons of baby food and food staples, and two million field rations to Howard Air Force Base and Torrijos International Airport from several continental United States locations.⁹³

Events in Panama had stabilized by New Year's Day to the point where MAC C-130s redeployed 56 troops to the United States. These were the first of the deployed forces to go home.⁹⁴ By the end of January, MAC aircraft had airlifted approximately 10,000 troops back to the United States. The last returned to the United States on 14 February 1990, the day JUST CAUSE officially ended for MAC.⁹⁵

From the time President Bush ordered the execution of JUST CAUSE on 17 December 1989 through 14 February 1990, C-5s, C-141s, C-130s, C-9s, C-12s, and civilian aircraft contracted by Headquarters MAC flew 775 missions to transport 39,994 passengers and 20,675 tons of cargo to and from Panama. Special operations units of MAC's Twenty-Third Air Force fulfilled a critical role in neutralizing pockets of resistance at H-hour and thereafter. Twenty-Third's AC-130, EC-130, HC-130, MC-130, MH-60, and MH-53 aircraft flew 796 missions during all of JUST CAUSE.⁹⁶

Media commentators correctly reported JUST CAUSE as being the largest United States military operation since Vietnam. Similarly, the early morning airdrop on Torrijos/Tocumen and Rio Hato Airfields constituted the largest personnel airdrop since Korea and the largest nighttime parachute assault in the history of air power. The restoration of democracy in Panama was a triumph for the concept of joint operations, as many intricately related assault operations had occurred simultaneously at H-hour. As measured by the number of separate organizations that participated directly in JUST CAUSE, MAC's role was greater than any other Air Force organization.

OPERATION DESERT SHIELD: PERSIAN GULF

Throughout the 1980s the Persian Gulf had been an area of considerable interest and instability. Indicative of this significance, the Department of Defense created in 1980 the Rapid Deployment Joint Task Force with responsibility over the area. This joint



MAC C-141 aircrews made the world's longest non-stop airdrop when they delivered troops directly from the United States to Egypt during BRIGHT STAR 82, held in the fall of 1981.

organization was renamed the United States Central Command, a unified command under the Joint Chiefs of Staff, on 1 January 1983.⁴⁷ The Military Airlift Command supported the deployment mission of this command as it managed American military operations in the region. One aspect of this support involved MAC airlift for a series of intense field training exercises, collectively named BRIGHT STAR and held during oddnumbered years since 1981. During BRIGHT STAR 82, MAC demonstrated an especially impressive intercontinental deployment capability. On the night of 14 November 1981, the command executed the longest nonstop parachute assault mission ever conducted. Using 24 C-141 aircraft, MAC airdropped 859 troops and 172 tons of cargo on a desert drop zone southwest of Cairo, Egypt, after flying 13 hours. The drop occurred within a few seconds of the scheduled time.**

Brigadier General Duane H. Cassidy, then the MAC Assistant Deputy Chief of Staff for Operations, commanded the airlift forces for this exercise. He recalled the significance of this achievement:

... the first time we dropped there in the desert, we were 20 seconds off on TOT [time over target]. It just amazed the hell out of me.... We had launched these airplanes out of Charleston and Pope, flew to Egypt, and dropped only 20 seconds off.⁸⁹

Such accuracy in a strategic airlift mission was unheard of, and it encapsulated the capability of the airmobility mission as never before.

If the Persian Gulf had been an area of intense significance in the 1980s, in August 1990 and the months that followed, the entire world focused on events there as Irag invaded and then annexed the nation of Kuwait. A ploy to boost Iraq's sagging economic position by raising oil prices, the invasion sparked both consternation and action from the leaders of other nations. Within days of the invasion, the United States began a multifaceted effort to achieve a status quo antebellum. President George Bush formed a loose coalition of nations to oppose Iraq's aggression. Under American sponsorship the United Nations condemned the act and mandated the use of force to prevent an Iragi invasion of Saudi Arabia and to prompt Iraq to withdraw its forces from Kuwait. At the same time, President Bush began Operation DESERT SHIELD, a massive deployment of hundreds of thousands of troops and tons of



At Rhein-Main Air Base, Army Apache helicopters stand ready for aerial porters to load them on a MAC C-5 bound for the Middle East. Within the first few months of DESERT SHIELD, Rhein-Main serviced almost as much traffic as it would in a normal year.

equipment and supplies to Saudi Arabia and other nations in the region to deter further aggression. The United Nations also initiated a blockade against iraq with the intent of forcing that nation's leaders to negotiate a settlement agreeable to all.

On 7 August 1990, MAC aircraft and crews began providing airlift support to elements of the nation's Armed Forces involved in the DESERT SHIELD deployment. All of the command's strategic airlift units, plus MAC-gained Air Reserve Component units, transported troops and equipment aboard C-141 Starlifters and C-5 Galaxys to the Southwest Asia theater of operations. As a measure of non-active duty participation, about 4,200 reservists volunteered to fly missions during the first weeks of the contingency. Tactical airlift support in the theater was provided by MAC C-130 Hercules aircraft and crews deployed from the United States.¹⁰⁰



An Air National Guard loadmaster, assigned to the 137th Military Airlift Squadron, Stewart Air National Guard Base, New York, was just one of the many Guard and Reserve personnel supporting Operation DESERT SHIELD.

Operating under a Defense Department contract, commercial aircraft, such as DC-10s, L-1011s and B-747s, moved passengers and cargo into the area. In addition to commercial alreraft chartered specifically for this operation, the Defense Department, through Headquarters MAC, contracted for civilian air carriers to replace military aircraft flying regularly scheduled DOD passenger and cargo flights elsewhere in the world. Beginning on 17 August 1990, General Hansford T. Johnson, MAC Commander in Chief, activated the first stage of the Civil Reserve Air Fleet to increase the civil airlift available to the military. This was the first time the Civil Reserve Air Fleet had been activated in its 38-year history. This action required 16 civilian carriers to provide up to 38 aircraft, 21 of them cargo aircraft, for the strategic deployment.101

Subsequently, General Johnson told members of the press corps that with DESERT SHIELD the United States was conducting its "largest sustained airlift ever over a short period of time." He explained that the strategic deployment had greatly taxed the MAC airlift system; all but five percent of the C-5s and 11 percent of the C-141s were being used to airlift troops and cargo to the region at that time. The command needed the remaining aircraft to meet MAC's mission requirements in other parts of the world.

The principle reasons for the saturation of the airlift system were the distance from the United States to the Middle East and the scope of the operation; both greatly expanded the flying hours for MAC aircraft. For example, a C-141 normally averaged four to five hours flight time each day, but DESERT SHIELD requirements, during the first weeks, nearly tripled the flying hours. "It's 7,000 miles by air from the East Coast, and about 10,000 miles from the West Coast," General Johnson said. "Flying time alone is 15 hours one way, in addition to refueling en route and offloading ... so we're talking at least two days to complete a roundtrip."



A member of the 438th Airlift Control Squadron, McGuire Air Force Base, New Jersey, passing time on a Saudi Arabian flightline waiting for a shuttle bus.

General Johnson compared the first few weeks of the deployment operation to airlifting a small city, stating: "We've moved, in essence, a Midwestern town the size of Lafayette, Indiana, or Jefferson City, Missouri. In addition, we've also moved the equivalent of all their cars, trucks, foodstuffs, stocks, household goods and water supply."¹⁰² The Military Airlift Command soon surpassed this effort. By 11 December 1990, within the first 127 days, military and Civil Reserve Air Fleet aircrews had transported over 244,000 tons of equipment and supplies and over 220,000 service personnel on more than 7,000 missions.¹⁰³



Desert conditions made an ample supply of bottled water critical.

CONCLUSION

Events of the 1980s helped to restructure the organization and mission of the Military Airlift Command. Following the congressionally directed cutbacks after the Vietnam War, crises in the Middle East drove Capitol Hill to reevaluate the need for airlift as well as the organization of the Defense Department. The Congressionally Mandated Mobility Study of 1981 concluded that the United States lacked the

mobility capacity to meet any one of a number of likely contingencies and recommended adding 20 MTM/D to MAC's projected airlift capability for a total of 66 MTM/D. The command spent the remainder of the decade striving to attain that goal. The unstable conditions in the Middle East and two important studies prompted Headquarters USAF to approve the consolidation of special operations forces into Twenty-Third Air Force under MAC's control in 1983. Leading Congressmen, however, were determined to give special operations more autonomy and enacted the Defense Reorganization Act of 1986, creating the unified United States Special Operations Command, with Twenty-Third Air Force as its air component, in 1987. Three years later, the Air Force converted Twenty-Third Air Force into the Air Force Special Operations Command, an independent major command. The Reorganization Act also established the United States Transportation Command composed of MAC, the Navy's Military Sealift Command, and the Army's Military Traffic Management Command. The Military Airlift Command lost its specified command status when USTRANSCOM became fully operational on 1 October 1988. The end of the Cold War and presidential and congressional efforts to bring the federal deficit under control meant that in the 1990s the Military Airlift Command would have to streamline some of its organizational elements still further.

Several significant military operations tested the command's ability to respond during its fifth decade: URGENT FURY, RUBBER WALL, JUST CAUSE, and finally, Operation DESERT SHIELD. Although MAC performed well, these contingencies taxed the command's capacity and documented the need for additional airlift resources. Military Airlift Command crewmembers also flew several historic missions into the Soviet Union in support of nuclear underground testing verification, the INF Treaty, and Armenian earthquake relief efforts. During each of these operations, command crewmembers flew to areas previously shielded from the West. The period was also characterized by a transformation in super-power relations, and the Military Airlift Command was at the forefront of that change.

Initially, the requirement to air transport military materials and passengers arose in the interwar years as the nation became air minded. During World War II, as the statistics attest, the air transport mission was critical to the war effort, and it proved its worth again during the Korean Conflict. Following these wars, the need for a military air transport system during wartime remained undisputed; there was, however, great debate over whether the Defense Department should maintain such a system in peacetime, especially when the commercial airlines could handle the government's transportation requirements. Thus, over the decades-driven by technological advances, political processes, and national security interests-the air transport mission developed into a highly responsive, worldwide military airlift system. These three major themes permeate the fifty-year history of the Military Airlift Command. Together, they capture the essence of how the command has evolved.

First, aviation technologies have continually influenced the evolution of military air transportation. Consequently, the history of airlift encompasses the endless search for larger, more advanced, and more capable aircraft systems to include improving attendant systems that provide for ground handling, aerial port, maintenance, and command and control. In reality, this quest incorporated changes in political priorities, service requirements, and defense strategies as well as the social and economic climates of the times.

Cargo capacity, range, and speed have always been central issues when deciding whether to purchase a particular transport aircraft. Starting in World War II with military versions of commercial aircraft such as the venerable C-47 (2.5 ton payload) and C-54 (6-7 ton), the command sought to develop its own transports to meet the armed services' specialized requirements. Although the prop-driven C-124 *Globemaster* was built specifically for military use, the shift from commercially-designed transports gained momentum when the Air Force moved from propeller to jet aircraft for its strategic airlift fleet.

The C-141 Starlifter, which entered service in the mid-1960s, fundamentally changed the military airlift system. General Howell M. Estes, Jr., the MAC Commander at the time, understood better than most that the acquisition of the C-141 ushered in a revolution in airlift. Estes identified nine overlapping technological limitations confronting an aircraft system: speed; range and payload tradeoffs; flexibility of employment; cubic capacity; ease of loading; selfsufficiency; fuel efficiency; direct operating costs; and terminal/airfield requirements. Although Estes asserted that no single aircraft had ever overcome all of these difficulties, he did conclude, however, that the C-141 had made a quantum leap forward by minimizing many of these historic limitations. The C-141 fostered a transportation revolution by its ability to airlift large loads over intercontinental distances to either a combat or non-threatening environment in a matter of hours. It opened up new avenues for the employment of airlift.

The C-5 *Galaxy* demonstrated a similar commitment to the never-ending search for technological developments that would increase airlift's capability. General Duane H. Cassidy, a former MAC Commander in Chief, suggested recently:

We started to build the C-5 and wanted to build the biggest thing we could build. We went to the engine manufacturers knowing that the power plants were going to determine how big the airplane could be. We said, "How big an engine can you build?" Herman the German, a guy working for GE at the time, Gerhard Neumann, said, "We can design you an 8:1 bypass ratio engine." Everybody rolled their eyes because that was twice as much as anybody had ever done before, but he designed it, and he built it. It was the TF-39 engine. That engine then has become a core for GE derivatives that are flying in every aircraft in the world today. Quite frankly, the C-5 program was a great contribution to commercial aviation. We'll never get credit for it, but we incentivized that industry by developing that engine. We figured out how much four 8:1 bypass ratio engines could lift and built an airplane around those four engines.

The C-5's wide-body design, massive cargo capacity, speed, and range (especially with aerial refueling) represented a tremendous breakthrough in airlift capability. A future airlifter, the C-17, incorporates recent technology and the best features of both the C-141 and C-5; it promises to represent another technological leap forward.

Technological advances, however, have not been limited to aircraft, for virtually every aspect of the airlift mission has been affected. For instance, the packaging, handling, and management of cargo has undergone substantial improvements since the pre-World War II era when everything was essentially hand loaded piece by piece. Even as late as the Berlin Airlift, it was not uncommon for items weighing 500 pounds to be loaded manually although forklifts did ease the burdensome loading procedures somewhat. When the C-124 was purchased in the early 1950s, it was designed not only for greater cargo capacity but also for easler loading. A former MATS Commander, William H. Tunner, wrote, "The front opens up like a clamshell, and ramps go down like the legs of a praying mantis. You can roll any cargo you want, even light tanks, right into this big beast."

In the mid-1950s, the Military Air Transport Service issued a contract for developing a rigid pallet, side guide rail system for the C-133. The contract resulted in the 463L materials handling system which has standardized cargo loading and management ever since. This gave rise to researching and developing special vehicles to move pallets and computerizing management tracking systems and the overall aerial port structure.

Another example of MAC employing technology expeditiously has been in the area of command, control, and communications. Virtually every aspect of the airlift mission has been affected by the advances in this field. From a simple system in World War II, which relied on rudimentary short-wave radios, radar, and telephones, the Military Airlift Command has developed an exceptionally capable system which allows near real-time flight-following of individual airlift missions worldwide as well as the means to communicate with that aircraft from MAC headquarters. Implementation of this system in the 1980s has been one of the most significant events in the command's history and represents the immediate benefits of futuristic technology. The search for appropriate technology will continue to ensure a responsive alrlift system.

The second major factor that has shaped the course of military alrlift is the political process. Indeed, Congress' direction has been felt at every major organizational change. There also exists the political maneuvering within the Defense Department and Headquarters United States Air Force. Military airlift, although part of the aviation family, has always been regarded as a stepchild. The reasons for this are complex. Even though airlift has long been officially considered one of the primary missions of the service, airlift, in essence, has been largely viewed as an auxiliary capability, not contributing directly to the quest for air superiority or strategic bombardment. This impression that airlift is closely tied to an essentially unglamorous logistical effort has reinforced the stepchild perception. In addition, airlift's ties to the Army have probably affected the standing the larger Air Force has given the airlift mission. Considering the divorce from the Army in 1947 had been a difficult one, the Air Force has sought to prove it has a mission and a significance beyond that of supporting ground operations.

This political environment ensures that the command's leadership has had difficulty obtaining the resources and priorities it required. This political

process also drove the quest for ever greater control of airlift assets within the Defense Department. Lieutenant General Tunner, one of the foremost airlift strategists, argued eloquently throughout his career for placing all airlift resources under a single major command. "Alrlift, rather than airlift airplanes, must be allocated to those commands which need it," he reflected. "To scatter thousands of expensive aircraft, complete with crews, maintenance, and spare parts throughout the entire military establishment has always been an inefficient and expensive waste of men, equipment, and money." Consolidating all airlift made sense not only on the basis of efficiency but also because of the inherent stature and authority a worldwide organization commands. In many respects, the Defense Department's regard for the airlift mission improved dramatically in the mid-1970s with the consolidation of tactical airlift resources into the Military Airlift Command and the command's designation as a specified command under the Joint Chiefs of Staff. One of the important challenges for the future will be to maintain the single manager concept, for difficulties abound and the stepchild stigma remains.

Third, from an operational perspective the command's mission is one of the most significant because it daily supports the national security interests of the United States. Unlike virtually all other Air Force missions, alrlift has an important role in both the peacetime and combat environments. It has been used in every conceivable scenario across a spectrum of foreign policy options from sustaining combat forces overseas; to projecting military power to Korea, Vietnam, the Caribbean and Latin America, the Middle East, or Southwest AsIa; to humanitarian airlift after disasters; to the movement of diplomats and foreign affairs advisors such as the shuttle-diplomacy missions of the early 1970s. All have been at the core of MAC's operations since the command's inception.

General Estes maintained that government officials began to recognize the importance of airlift early in the 1960s as a tool for executing the foreign policy objectives of the United States. He wrote that "global military airlift has been shown, throughout the era of the cold war, to be a principal medium of achieving maximum military flexibility." By the time of the Vietnam Conflict, Estes contended that MAC had become "the key element in a far-ranging change in national policy: to a strategy of multiple options for flexible, measured response to any situation in the spectrum of war." He called this linear progress; it was relatively straightforward, except to the most myopic and obtuse individuals, that the obvious advantages of airlift outweighed its limitations. The Military Airlift Command's unique, varied, and farreaching responsibilities will continue to prove the importance of airlift into the twenty-first century.

Chapter I

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- 6. Alr Force Pamphlet 190-2-2, Secretary of the Air Force Office of Information, "A Chronology of American Aerospace Events from 1903 through 1964," 1 September 1965, p 19.
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- I. D. Levine, Mitchell: Pioneer of Air Power (New York: Duell, Sloan and Pearce, 1943; reprinted edition Amo Press, 1972), pp 146-151; Major D. S. White, "The Evolution of Airdrop Technique from an Aircrew Perspective," Air Command And Staff College Thesis (Maxwell AFB, AL: Air University, 1984), p 6. According to Levine, Mitchell tested the concept of deploying airborne troops with machine guns after the war at Kelly and Brooks Fields, Texas.

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- To understand how bombardment, pursuit, and attack aviation dominated planning in the Army's air arm, sea: T. H. Greer, *The Development of Air Doctrine in the Army Air Arm, 1917-1941* (Washington, DC: Office of Air Force History, 1985 edition); and R. F. Futrell, *Ideas, Concepts, Doctrine*, 2 Vols (Maxwell AFB, AL: Air University Press, 1989 edition).
- Maurer, Aviation in the U. S. Army, pp 150-153; D. H. Bruce, The Evolution of the Storage System of the Air Technical Service Command, Part I, 1918-1940 (Air Materiel Command Historical Study No. 262, 1945), pp 125-127; L. E. Walker and S. E. Wickam, From Huffman Prairie To The Moon: The history of Wright-Patterson Air Force Base (Wright-Patterson AFB, OH: Office of History 2750th Air Base Wing, 1987), pp 78, 79; Futrell, Ideas, Concepts, Doctrine, Vol 1, pp 51, 61.
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- 23. Maurer, Aviation in the U.S. Army, pp 368, 369.
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- 25. "Soldiers in the Sky," Time, 23 May 1938, pp 10, 11.
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- Administrative History of the Ferrying Command, pp 59, 60; Craven and Cate, The Army Air Forces in World War II, Vol I, p 328; General Order 3, Office of the Chief of the Air Corps, "Corrected Order Reorganizing ACFC," 30 December 1941.
- 29. Miller, Airlift Doctrine, pp 29, 30.
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- 32. History of the South Atlantic Division, May-November 1942 (Air Transport Command), pp 56-63; History of the Air Transport Command: Ferrying Command Operations, December 7, 1941-June 30, 1942 (Washington, DC: ATC Office of the Assistant Chlef of Staff, Historical Division, 1946), pp 78-87. During World War II the United States established 29 air bases in Brazil, many of them to support the air transport network. See: T. L. Kraus, "The Establishment of United States Army Air Corps Bases in Brazil, 1938-1945," Ph.D. Diss., University of

Maryland, 1986; B. E. Weathers, Acquisition of AAF Bases in Latin America, June 1930-June 1943 (Maxwell AFB, AL: USAF Historical Division, 1960).

- 33. History of the Air Transport Command: Ferrying Command Operations, December 7, 1941-June 30, 1942, pp 91-104.
- 34. History of the Air Transport Command: Ferrying Command Operations, December 7, 1941-June 30, 1942, pp 78-82.
- 35. The assignment of the technical services to the Air Transport Command is discussed in Chapter 3.
- New York Times, 19 August 1941, p 4; Craven and Cate, The Army Air Forces in World War II, Vol I, pp 322-324. Also see: R. Daley, An American Saga: Juan Trippe and His Pan Am Empire (New York: Random House, 1980).
- History of the Air Transport Command: Ferrying Command Operations, 7 December 1941-30 June 1942, pp 183, 187-191, 208, 209; Miller, Airlift Doctrine, p 31.
- 38. Hinds, The Development of Strategic Airlift, p 3.
- 40. From 31 March 1942 until its redesignation on 20 June 1942 as the Air Transport Command, the Air Corps Ferrying Command was commonly known as the Ferrying Command to include such variants as the Ferry Command, Army Air Forces Ferrying Command, and the Air Force Ferrying Command. The confusion over the name change is confirmed by the official correspondence of the period in question.
- 41. Organization of the Army Arm, 1935-1943, (Army Air Forces Historical Studies: No. 10, 1944) p 79; Administrative History of the Ferrying Command, pp 86, 122, 123; Army Air Forces Regulation Number 20-4, Headquarters Army Air Forces, "Organization of the Air Service Command," 17 October 1941.
- 42. Memorandum, Lieutenant General H. H. Arnold, Commander Army Air Forces, to Colonel H. George, Commander Air Corps Ferrying Command, "Reorganization of Air Service Command and Ferry Command," 24 March 1942.
- Air Force Manual 2-21, "Strategic Airlift," 13 July 1972.
- 44. Air Force Manual 2-4, "Tactical Air Force Operations: Tactical Airlift," 10 August 1966.
- 45. Administrative History of the Ferrying Command, pp 103, 104.
- Memorandum, L. W. Pogue, Chairman Civil Aeronautics Board, to General H. H. Amold, Commander Army Air Forces, "Memorandum Concerning War Aviation Transport Services," 15 June 1942.

- 47. Memorandum, Lieutenant General H. H. Arnold, Commander Army Air Forces, to Major General M. F. Harmon, Army Air Forces Chief of Staff, "Transport Functions of the Air Service Command and the Ferrying Command," 12 June 1942.
- 48. General Orders Number 8, Headquarters Army Air Forces, 20 June 1942.
- 49. Administrative History of the Ferrying Command, pp 108-111; Craven and Cate, The Army Air Forces in World War II, Vol 1, pp 361, 362; Hinds, Development of Strategic Airlift, pp 2, 3.
- 50. Hinds, Development of Strategic Airlift, p 4.
- 51. Administrative History of the Ferrying Command, p 115.

Chapter II

- Between June and July 1942, the command's headquarters moved from Washington, DC, where it had been located since October 1941 in Temporary War Department Building H, to Army Air Forces Annex 1 at Gravelly Point, Virginia, adjacent to the Washington National Airport. Prior to October 1941, and since its inception, the command's headquarters was in the Munitions Building, which was near Building H and is presently the mall area of Washington, DC. See: Administrative History of the Ferrying Command, 29 May 1941-30 June 1942, pp 15, 54, 55; Administrative History of the Air Transport Command, June 1942-March 1943 (Washington, DC: ATC Intelligence and Security Division, Historical Branch, 1945), p 32.
- Statistical History of the Air Transport Command, 29 May 1941-31 May 1948 (Washington, DC: ATC Analysis Division, Office of Statistical Control, circa 1948), pp 20, 22, 83.
- 3. Administrative History of the Air Transport Command, June 1942-March 1943, p 1.
- 4. General Orders Number 8, Headquarters Army Air Forces, 20 June 1942.
- 5. With German submarine activities continuing to take a toll on surface-borne shipments, ATC's air transports were tasked in 1942 to carry war-essential raw materials on their return trips to ensure the United States maintained sufficient reserves. For example, ATC transported mica from India, South America, and South Africa; guartz crystals from South America; tantalite from Brazil and the Belgian Congo; industrial diamonds from South Africa; beryl ore and rubber from Brazil; rotenone-bearing roots and powder from South America; mercury, tungsten, tin, silk, and hog bristles from China; balsa wood from Central America; platinum from the Persian Gulf. See: Administrative History of the Air Transport Command, June 1942-March 1943, pp 150-156; American Air Transport, (Washington, DC: Office of War Information, 1943), pp 2, 3.

- Administrative History of the Ferrying Command, 29 May 1941-30 June 1942, pp 104, 105; Administrative History of the Air Transport Command, June 1942-March 1943, pp 3, 7, 37, 150-156; American Air Transport, pp 2, 3; memo to Commanding General ATC from Brigadier General T. J. Hanley, Jr., Assistant Chief of the Air Staff for A-4, AAF, "Evacuation of Casualties by Air," 28 August 1942; Statistical History of the Air Transport Command, 29 May-31 May 1948, p 28.
- Administrative History of the Air Transport Command, June 1942-March 1943, pp 3, 4, 7-9, 94-96; letter, Colonel C. R. Smith, ATC Executive, to commanding officers, "Plan of Organization and Operation for Foreign Deliveries of Alrcraft," 1 July 1942; letter, Brigadier General H. L. George, ATC Commander, "Organization," 27 July 1942.
- 8. Ibid, pp 18, 28, 121, 122, 202, 203; Administrative History of the Air Transport Command, March 1943-July 1944 (Washington, DC: ATC Intelligence and Security Division, Historical Branch, 1946), pp 2, 120-123, 143. The thirteen carriers were: All American, American Airlines, Braniff, Chicago & Southern, Colonial, Continental, Delta, Inland, Mid-Continent, National, Pennsylvania-Central, Southwest, and United Airlines.
- Administrative History of the Air Transport Command, June 1942-March 1943, pp 51-66, 201; Administrative History of the Air Transport Command, March 1943-July 1944, pp 61-72, 80-90, 217; General Orders Number 32, Headquarters Air Transport Command, 17 July 1944; memo from Major General H. A. Craig, Chief Theater Group, to the Commanding General Army Air Forces, "Orderly Reduction of the Air Transport Command," 28 August 1945. The divisions in 1945 were: European, North African, India-China, Pacific, Alaskan, North Atlantic, Caribbean, South Atlantic, and Ferrying with the Central African Division having been inactivated.
- 10. Statistical History of the Air Transport Command, 29 May-31 May 1948, pp 2, 4, 6. Although civilians worked for the command since its inception in 1941, command strength figures generally reported only officer and enlisted assignments in the early years because civilian figures were kept by the War Department until 1944.
- Craven and Cate, The Army Air Forces in World War II, Vol VII, pp 29-45; History of the Air Transport Command: Ferrying Command Operations, December 7, 1941-June 30, 1942, pp 36, 37, 45; History of the Air Transport Command, March 1943-July 1944, pp 98-107.
- Administrative History of the Ferrying Command, 29 May 1941-30 June 1942, pp 90-92; History of the Air Transport Command: Ferrying Command Operations, December 7, 1941-June 30, 1942, pp 200-202; Administrative History of the Air Transport Command, June 1942-March 1943, p 34, 107; Administrative History of the Air Transport Command, March 1943-July 1944, pp 18-20.
- 13. See the aircraft appendix for statistical information on the numbers and types of aircraft operated by the command over its history.

- C. V. Glines and W. F. Moseley, The Legendary DC-3 (New York: Van Nostrand Reinhold, 1979); A. Pearcy, DC-3 (New York: Ballantine Books, 1975); F. G. Swanborough, United States Military Aircraft Since 1909 (New York: Putnam, 1963), pp 221-227; History of the Air Transport Command: Ferrying Command Operations, December 7, 1941-June 30, 1942, p 188; Statistical History of the Air Transport Command, 29 May 1941-30 June 1948, pp 2, 69.
- Craven and Cate, The Army Air Forces in World War II, Vol VII, pp 24, 25; Swanborough, United States Military Aircraft Since 1909, pp 193-195; American Air Transport, pp 22, 23, 28; Statistical History of the Air Transport Command, 29 May 1941-30 June 1948, p 69.
- Craven and Cate, The Army Air Forces in World War II, Vol VII, pp 27, 28; Swanborough, United States Military Aircraft Since 1909, pp 242-46; Statistical History of the Air Transport Command, 29 May 1941-31 May 1948, p 69.
- Craven and Cate, The Army Air Forces in World War II, Vol VII, pp 28, 29; Swanborough, United States Military Aircraft Since 1909, pp 132-142; American Air Transport, pp 26, 27; Statistical History of the Air Transport Command, 29 May 1941-31 May 1948, p 69.
- Statistical History of the Air Transport Command, 29 May 1941-31 May 1948, pp 2, 9; Headquarters Air Transport Command, Statistical Control Division, "Inventory of Assigned Aircraft," 15 March 1945.
- 19. Administrative History of the Ferrying Command, 29 May 1941-30 June 1942, pp 73, 78-86; Administrative History of the Air Transport Command, March 1943-July 1944, pp 107-109, 120-123, 205-214. While the command was charged with controlling the execution of all air transport contracts. the contracts were negotiated through the Materiel Division. Moreover, Headquarters Army Air Forces had also created an office (Millitary Director of Civil Aviation) to coordinate the War Department's relations with the civil aviation industry and its liaison with other government agencies charged with civil aviation matters. Additionally, contractors complained that unauthorized personnel frequently issued instructions that required a directive from one of the command's four contracting officers. Contractors could also address requests or complaints to either the Air Transport Command commander, division commanders, or the Materiel Division contracting officer, which confused matters considerably.
- 20. Headquarters Military Air Transport Service, "Statistical Abstracts," March 1949.
- 21. Major General W. H. Tunner, "Air Lift to China: A Saga of Aerial Blockade Running," Logistics, July 1947, pp 23-25; Headquarters Air Transport Command, "Air Transport and its India China Division," circa 1945; Air Transport Command Plans Division, "Report on Air Cargo Capacity from India into China during 1942," 8 January 1943; Craven and Cate, The Army Air Forces in World War II, Vol VII, pp 116, 117; Statistical History of the Air Transport Command, 29

May 1941-31 May 1948, pp 29, 100, 103, 112; Air Transport Command India China Division, "ICD of ATC-Its Hump Record," December 1945.

- Craven and Cate, The Army Air Forces in World War II, Vol VII, pp 116, 117, 123; Anna Chennault, Chennault and the Flying Tigers (New York: P. S. Eriksson, Inc., 1963), pp 199-201; C. F. Romanus and R. Sunderland, China-Burma-India Theater: Stilwell's Mission to China (Washington, DC: Office of Chief of Millitary History, 1953), pp 61-70, 165; R. E. Sherwood, Roosevelt and Hopkins: An Intimate History (New York: Harper Brothers, 1948), pp 458-460.
- These tactics and the Burma campaign have been described in Romanus and Sunderland, Stilwell's Mission to China, pp 81-148; J. W. Slim, Defeet into Victory (London: Cassell, 1956); F. Eldridge, Wrath in Burma (New York: Doubleday and Co., 1946); F. Owen, The Campaign in Burma, (London: His Majesty's Stationery Office, 1946); G. S. Seagrave, Burma Surgeon (New York: W. W. Norton and Co., 1943).
- H. H. Arnold, Global Mission (New York: Harper and Brothers, 1949), pp 279, 282, 302; R. M. Cleveland, Air Transport at War (New York: Harper and Brothers, 1946), pp 211-213; Administrative History of the Air Transport Command, June 1942-March 1943, pp 52-54.
- 25. Headquarters Air Transport Command, "Air Transport and its India China Division," *circa* 1945; ATC Plans Division, "Report on Air Cargo Capacity from India into China during 1942," 8 January 1943; LaFarge, *The Eagle in the Egg*, pp 87, 88.
- W. Willauer, Secretary, China Defense Supplies, Inc., to Colonel H. R. Harris, ATC, 23 September 1942; C. L. Chennault, Way of a Fighter: The Memoirs of Claire Lee Chennault (New York: G. P. Putnam, 1949), pp 203, 204; Craven and Cate, The Army Air Forces in World War II, Vol VII, pp 119-121.
- Captain L. Peyton, "Report and Survey of the Indla-China Air Transport Operation," 9 October 1942; Colonel C. R. Smith, ATC, to Commanding General, AAF, "India-China Ferry Operations," 13 October 1942; LaFarge, Eagle in the Egg, pp 89, 90; Administrative History of the Air Transport Command, June 1942-March 1943, pp 52-54.
- Administrative History of the Ferrying Command, 29 May 1941-30 June 1942, p 15; Administrative History of the Air Transport Command, June 1942-March 1943, p 54; General Orders Number 1, Headquarters India-China Wing, 1 December 1942.
- 29. Cleveland, Air Transport at War, pp 229-231; LaFarge, Eagle in the Egg, pp 109, 110; H. L. "Duffy" Buller, "The C-46 and C-47 in CBI Operations," Aerospace Historian, Summer 1975, pp 80-83.
- 30. Arnold, Global Mission, pp 410-412; LaFarge, Eagle in the Egg, pp 109, 110.
- 31. McMahon, "Over the Hump," p 95.

- Colonel C. V. Glines and Lieutenant Colonel W. F. Moseley, "A Goony Gets a Zero," in Major J. F. Sunderman, ed., World War II in the Air: The Pacific (New York: Franklin Watts, Inc., 1962), pp 182-184.
- 33. W. H. Tunner, Over the Hump (New York: Duell, Sioan, and Pearce, 1964), pp 79, 80.
- Romanus and Sunderland, Stilwell's Mission to China, pp 320-341; Chennault, Way of a Fighter, pp 217-222, 225, 226; W. J. Koening, Over the Hump: Airlift to China (New York: Ballantine Books, 1972), pp 93-97; American Airlines, "Project 7-A, Aug. 1 to Dec. 1, 1943," n.d.; Air Transport Command Plans, "ATC Twelve Month Operations Forecast, India-China Wing, April 1943 thru March 1944," n.d.
- 35. Romanus and Sunderland, Stilwell's mission to China, pp 341-347; Colonel R. W. Ireland, Assistant Chief of Staff, Priorities and Traffic, Air Transport Command, to All Wing Commanders, "Route Descriptions," 23 September 1944; Captain J. F. Philipp, India-China Wing, to R. W. Fausel, "Landing Fields for C-46 Operations," 19 March 1943; Intelligence Division, Air Transport Command, "Route Information on Fields, India-China Route," 3 February 1943; Colonel E. H. Alexander, Commander India-China Wing, "Extract from Report of Colonel E. H. Alexander, C.O., India-China Wing, Dated Jan. 4, 1943, to Chief of Staff, ATC," 4 Fabruary 1943; Colonel E. H. Alexander, Commander India-China Wing, "India China Wing, Air Transport Command, Monthly Report for June, 1943," 19 July 1943; Lieutenant Colonel F. C. Morgan, Chief Intelligence Security Division, ATC, to Chief, Overseas Technical Unit, ATC, "Information on Certain ATC Routes and Bases," 2 October 1944; Colonel E. H. Alexander, Commander India-China Wing, to Commander, ATC, "Informational Report on the India-China Wing," 4 July 1943.
- Major General H. L. George to Army Air Forces Commander, "Expanded Operations of the India-China Wing, Air Transport Command," 19 April 1943; Major D. E. Betts, Executive Officer, Personnel, India-China Wing, to Assistant Chief Air Staff, "Request for Unit for India China Wing, ATC," 12 June 1943; D. Moser, *China-Burma-India* (New York: Time-Life Books, 1978), p 82; Staff Sergeent L. S. Gray, Diary, 16 and 18 September 1943.
- E. Sevareid, Not So Wild a Dream, (New York: Alfred A. Knopf, 1946), as described in Moser, China-Burma-India, p 80.
- 38. Gray, Diary, 19, 21, and 23 September 1943.
- 39. Gray, Diary, 11 October 1943.
- 40. Amold, Global Mission, pp 433, 434.
- 41. Aircrews could easily have come to this conclusion based upon the diverse nature of the cargo carried, for instance: gasoline, lubricants, tires, ammunition, mines, mortars, howitzers, machine guns, bombs, rockets, bulldozers, steam rollers, graders, fire trucks, ten-wheeled trucks, jeeps, generators, refrigerators, bicycles, ambulances, radio stations, telephones, medicine, clothing, soap, movies, tents, horses,

mules, gold, POWs, wounded, and combat troops. See: Headquarters India China Divison, "ICD of ATC Its Hump Record," December 1945, pp 6, 8.

- 42. Tunner, Over the Hump, pp 88-90; Moser, China-Burma-India, p 84.
- 43. History of the India-China Wing, Air Transport Command, June-December 1943, (Andrews Field, DC: Office of ATC History, 1944), pp 76-89; War Department, Public Relations, "India-China Wing, ATC, Receives Presidential Citation," 29 January 1944; Major General H. L. George, Commander, ATC, to Brigadier General E. S. Hoag, Commander, India-China Wing, 5 February 1944; General H. H. Arnold, Commander, AAF, to President F. D. Roosevelt, 5 January 1944; President F. D. Roosevelt, 5 January 1944; President F. D. Roosevelt, 5 January 1944; President F. D. Roosevelt to General H. H. Arnold, Commander, AAF, 6 January 1944; Brigadier General C. R. Smith, Deputy Chief of Staff, ATC, to ATC Headquarters Division, "Results of Increased 'Hump' Tonnage," 18 February 1944.
- Brigadier General C. R. Smith, Deputy Commander, ATC, to Major General H. L. George, Commander, ATC, 1 and 5 December 1943; *History of India-China* Wing, June-December 1943, pp 175, 176.
- Headquarters India China Division, "ICD of ATC Its Hump Record," December 1945, p 9. For more information on search and rescue operations, see: J. L. Vandegrift, ed., A History of the Air Rescue Service, (Winter Park, FL: Rollins Press, 1959).
- 46. First Lieutenant J. G. Nesbitt, India-China Wing, "Weekly Intelligence Summary," 7 August, 14 August, and 21 August 1943; Major J. M. Gregory, India-China Wing, "Weekly Informational Report," 13 August 1943; C. Knight, Lifeline in the Sky: The Story of the U.S. Military Air Transport Service (New York: William Morrow and Co., 1957), pp 31-38; Craven and Cate, The Army Air Forces in World War II, Vol VII, pp 132, 133.
- Tunner, Over the Hump, pp 51, 52; Craven and Cate, The Army Air Forces in World War II, Vol VII, pp 133, 134.
- 48. Headquarters India China Division, "ICD of ATC-Its Hump Record," December 1945, p i.
- Attachment 3 to C. W. Dickens, Chief, Office of MAC History, to Major General J. I. Baginski, "Air Transport and its India China Division," September 1981.
- Tunner, Over the Hump, pp 67-69; Craven and Cate, The Army Air Forces in World War II, Vol VII, pp 142, 143; Headquarters India China Division, "ICD of ATC-Its Hump Record," December 1945, p i.
- 51. Tunner, Over the Hump, pp 93-95.
- History of the India-China Division, Air Transport Command, 1945 (Andraws Field, DC: Office of ATC History, 1946), pp 100-114.
- 53. Koening, Over the Hump, pp 151-158.
- Air Operations in China, Burma, India, World War II (Washington, DC: United States Strategic Bombing Survey, 1947), p 101.

- The best works on this subject are R. C. Lukas, *Eagles East* (Tallahassee: Florida State University Press, 1970), and Motter, *The Persian Corridor and Aid to Russia*.
- 56. Lukas, Eagles East, pp 88, 89, 96.
- 57. Cited in T. A. Julian, "Operation Frantic and the Search for American-Soviet Military Collaboration, 1941-1944," p 214, Ph.D. Diss., Syracuse University, 1967. Stalin was undeniably vague, however, and neither Harriman nor the American military advisor to Moscow, Brigadier General John R. Deane, was ever able to get a detailed commitment from him.
- Lukas, Eagles East, p 195; J. R. Deane, The Strange Alliance (New York: The Viking Press, 1947), p 109.
- 59. Deane, Strange Alliance, p 114.
- 60. This was the eleventh major movement of aircraft or equipment by the Air Transport Command's North African Wing, hence the name. The previous missions supported the invasion of italy and operations in Africa and India. The only Soviet-authorized Air Transport Command air route for men and supplies into the Soviet Union to support FRANTIC went from Qaleh Morgeh, the Russian-controlled airport at Teheran, Iran, to Poltava, then to Mirogorod and Piryatin.
- 61. History of Air Transport Command in Tehran, Iran, From May 1942 to August 1944.
- J. Parton, Air Force Spoken Here: General Ira Eaker and the Command of the Air (New York: Adler and Adler, 1987), p 398.
- Message, Harriman personal to Roosevelt, 2 June 1944, quoted in Julian, "Operation Frantic," p 207.
- 64. Deane, Strange Alliance, p 121.
- 65. Ibid, pp 207, 208.
- 66. Ibid, p 297.
- 67. Parton, Air Force Spoken Here, p 411.
- 68. Motter, Persian Corridor and Aid to Russia, p 260.
- 69. For more information on airborne operations in World War II, see: K. Gabel, The Making of a Paratrooper: Airborne Training and Combat in World War II (Lawrence: University Press of Kansas, 1990); G. M. Devlin, ParatrooperI The Sage of U.S. Army and Marine Parachute and Glider Combat Troops During World War II (New York: St. Martin's Press, 1979); C. Blair, Ridgway's Paratroopers: The American Airborne in World War II (New York: Dial Press, 1985).
- General Orders Number 1, Headquarters Wright Field, "Activation of Hq. & Hq. Sq., 50th Transport Wing, Air Corps," 14 January 1941; D. H. Bruce, The Evolution of the Storage System of the Air Technical Service Command, Part II, 1941-1945 (Air Materiel Command Historical Study No. 263, 1946), pp 316, 317, 319, 320; Miller, Airlift Doctrine, pp 79, 80.

- 71. Having two distinct commands with the same name would have caused a great deal of confusion. Fortunately, the first Air Transport Command was quickly redesignated the I Troop Carrier Command before the name had time to stick, leaving the Ferrying Command to assume that designation in June 1942.
- 72. J. N. McVay, "The Troop Carrier Command," *Military Review*, May 1945, pp 12-15; General Orders Number 8, Headquarters Army Air Forces, 20 June 1940; Colonel R. Nerno, Adjutant General Headquarters Field Services, Air Service Command, to commanding officers at all Air Service Area Commands and all Air Depots, "50th Transport Wing," 5 May 1942.
- 73. Major D. S. White, "The Evolution of Airdrop Technique from an Aircrew Perspective," Air Command and Staff College Thesis (Maxwell AFB, AL: Air University, 1984), p 14.
- J. C. Warren, Airborne Operations in the Mediterranean, 1942-1945 (Maxwell AFB, AL: USAF Historical Division, 1955); J. C. Warren, Airborne Operations in World War II, European Theater (Maxwell AFB, AL: USAF Historical Division, 1956); Miller, Airlift Doctrine, pp 79-154.
- White, "The Evolution of Airdrop Technique from an Aircrew Perspective," pp 12-16; J. M. Gavin, Airborne Warfare (New York: Infantry Journal Press, 1947).
- 76. For further information on the invasion, see: J. Keegan, Six Armies in Normandy: From D-Day to the Liberation of Paris, June 6th-August 25th, 1944 (New York: Viking Press, 1982). Keegan's description of the 101st Airborne Division's activities (pp 69-114) is particularly compelling.
- 77. The MARKET-GARDEN operation has been discussed in detail in C. B. MacDonald, "The Decision to Launch Operation MARKET-GARDEN (1944)," in K. R. Greenfield, ed., Command Decisions (New York: Harcourt Brace, 1959), pp 329-341; A. Farrar-Hockley, Airborne Carpet: Operation Market-Garden (New York: Ballantine Books, 1969); A. McKee, The Race for the Rhine Bridges: 1940-1944-1945 (New York: Stein and Day, 1971); C. Ryan, A Bridge Too Far (New York: Popular Library, 1974).
- Craven and Cate, The Army Air Forces in World War II, Vol III, pp 187, 188.
- 79. Miller, Airlift Doctrine, p 100; S. L. A. Marshall, Night Drop: The American Airborne Invasion of Normandy (Boston: Little, Brown, 1962).
- 80. Keegan, Six Armies in Normandy, pp 81, 82.
- Craven and Cate, The Army Air Forces in World War II, Vol III, pp 187, 188.
- Keegan, Six Armies in Normandy, p 83; M. Wolfe, Green Light! Men of the 81st Troop Carrier Squadron Tell Their Story (Philadelphia: University of Pennsylvania Press, 1989), pp 78-110; Miller, Airlift Doctrine, p 100.
- Craven and Cate, The Army Air Forces in World War II, Vol III, pp 188, 189.

- On glider operations, see: G. M. Devlin, Silent Wings: The Sage of U.S. Army and Marine Combat Glider Pilots during World War II (New York: St. Martin's Press, 1985).
- 85. Miller, Airlift Doctrine, pp 100-102.
- 86. J. Cornett, "Airborne Invasion-Normandy," *Military Review*, November 1944, pp 21-24; Miller, *Airlift Doctrine*, pp 102, 103.
- 87. McKee, Race for the Rhine Bridges, pp 114-118.
- 88. Blair, Ridgway's Paratroopers, pp 318-325.
- 89. Warren, Airborne Operations in World War II, pp 88-90.
- 90. Wolfe, Green Lightl, pp 313-315.
- 91. Craven and Cate, *The Army Air Forces in World War II*, Vol III, pp 498, 499; M. Maurer, ed., *Air Force Combat Units of World War II* (Washington, DC: Government Printing Office, 1983), pp 361, 362.
- 92. Craven and Cate, *The Army Air Forces in World War II*, Vol III, pp 498-502.
- Ibid, Vol III, pp 494-98; M. Maurer, ed., Combat Squadrons of the Air Force: World War II (Washington, DC: Government Printing Office, 1969), pp 517, 518.
- 94. Craven and Cate, *The Army Air Forces in World War* //, Vol III, pp 518-524.
- 95. I. Padden, *The Fighting Elite: U.S. Air Commando* (New York: Bantam Books, 1985); "Lineage History of the 1st Special Operations Wing," *circa* 1973.
- Major General R. M. Webster, Commander, MATS, to National War College Class, "Planning War Use of Air Transportation," 10 February 1947.

Chapter III

- Statistical History of the Air Transport Command, 29 May 1941-31 May 1948, p 29. These statistics do not include ferrying activities. ATC transports made approximately 39,000 Atlantic and 13,000 Pacific crossings between July 1942 and August 1945.
- On this issue, see: G. Herken, The Winning Weapon: The Atomic Bomb and the Cold War, 1945-1950 (Princeton, NJ: Princeton University Press, 1981); H. R. Borowski, A Hollow Threat: Strategic Air Power and Containment Before Korea (Westport, CT: Greenwood Press, 1982).
- 3. Hinds, The Development of Strategic Airlift for the Armed Forces of the United States, 1941-1965, pp 5, 6; Statistical History of the Air Transport Command, 29 May 1941-31 May 1948, p 15; Craven and Cate, The Army Air Forces in World War II, Vol VII, p 219. In addition, ATC returned more than 18,000 personnel and 1,310 aircraft from the Pacific under the "Sunset Project."

- History of Air Transport Command, 1 October 1945-31 December 1946 (Washington, DC: Intelligence Division, Historical Branch, 1950), p 108; Hinds, Development of Strategic Airlift, p 5.
- 5. See note above; paper, "Military Air Transport Service," prepared for *The Army Almanac*, 4 August 1948.
- 6. History of Air Transport Command, 1 October 1945-31 December 1946, pp 46, 47. The State Department received 100 of the surplus C-54s to use as bargaining chips with foreign governments when seeking landing rights. With the United States controlling material and strategic airfields and ATC operating worldwide, perceptions existed that the military-ATC-was "fronting" for an American air transport monopoly. By parceling out these planes, in conjunction with reduced ATC operations, especially pullouts from foreign airfields, the State Department hoped to ease suspicions. The rest of the C-54s were made available to United States civil air carriers.
- 7. Craven and Cate, *The Army Air Forces in World War II*, Vol VII, p 569.
- 8. *Ibid*, p 575; *History of Air Transport Command, 1* October 1945-31 December 1946, pp 14, 15, 28, 81.
- 9. Army Air Forces Regulation 20-1, 15 September 1945, as cited in *History of Air Transport Command*, 1 October 1945-31 December 1946, p 1.
- Craven and Cate, *The Army Air Forces in World War II*, Vol VII, pp 573-575; C. A. Ravenstein, *The Organization and Lineage of the United States Air Force* (Washington, DC: Office of Air Force History, 1986), p 16.
- 11. F. O. DuPre, U.S. Air Force Biographical Dictionary (New York: Franklin Watts, Inc., 1965), p 216.
- 12. Letter, ATC Commander to Lieutenant General Harold L. George, [Future Organization of ATC], 26 November 1945, in History of Air Transport Command, 1 October 1945-31 December 1946, Vol II, Supporting Document 3. General Smith also gave a lecture on air transportation and air power to the Air War College on 23 January 1947, following his return to American Alrlines. In it he claimed that the Allies were employing approximately 10,000 transport aircraft at the end of the war. He suggested that the United States should have half that number of aircraft as an "air power reserve" in peacetime-500 to be provided by the military and the remaining 4,500 to be operated by the civil airlines. General Smith said the Army still needed to decide whether the centralized air transportation organization would also be given responsibility for air distribution within overseas theaters. Based on experience, Smith suggested as "an appealing form of organization" that a central organization operate the "main lines" between the United States and the theaters, with the theater commander operating his own internal air distribution system. He did note, however, that it was difficult during combat to operate internal air distribution systems and conduct airborne operations at the same time, see: C. R. Smith, Transcript of Lecture to Air War College, 23 January 1947, p 9.

13. Ibid.

- Letter, General H. H. Arnold to General C. A. Spaatz, [Air Transport Responsibilities], 6 December 1945, as quoted in historical study, *Consolidation of Military Air Transport Services*, by MATS Historical Branch, 26 October 1951.
- 15. *Ibid*.
- 16. Ibid.
- 17. Ibid.
- 18. Ibid.
- 19. Ibid. General George apparently believed that ATC should not be in charge of such bases, but rather thought of his command as "a railroad running through other people's activities." While he was specifically addressing Pacific base support, he stated that "responsibility for housing, messing, etc., shouldn't be ATC's any more than it is TWA's." See: History of Air Transport Command, 1 October 1945-31 December 1946, p 123.
- 20. Ibid.
- R. M. Markus, et al, Air Weather Service: Our Heritage, 1937-1987 (Scott AFB, IL: Office of AWS History, 1987), p 5; L. G. Miller, et al, Air Force Communications Command Chronology, 1938-1988 (Scott AFB, IL: Office of AFCC History, 1989), pp 12, 14; T.S. Snyder, et al, The Air Force Communications Command: Providing the Reins of Command, 1938-1981, An Illustrated History (Scott AFB, IL: Office of AFCC History, 1981), pp 5-12.
- Craven and Cate, The History of the Army Air Forces, Vol VI, pp 34, 36, and Vol VII, p 319.
- 23. Ibid, Vol 1, p 42.
- On this organization, see: C. C. Bates and J. F. Fuller, *America's Weather Warriors*, 1814-1985 (College Station: Texas A&M University Press, 1986).
- Craven and Cate, The Army Air Force in World War II, Vol VI. pp 69, 70, and Vol VII, pp 319, 346; Markus, et al, Air Weather Service: Our Heritage, pp 8, 11; Snyder, The Air Force Communications Command, p 42.
- Craven and Cate, The Army Air Forces in World War //, Vol VII, pp 319, 320.
- E. H. Tilford, Jr., Search and Rescue in Southeast Asia, 1961-1975 (Washington, DC: Office of Air Force History, 1980), pp 7-9. For more information on the what became the Air Rescue Service, see: J. L. Vandergrift, Jr., A History of the Air Rescue Service (Winter Park, FL: Office of ARS History, 1959); Air-Sea Rescue, 1941-1952 (Maxwell AFB, AL: USAF Historical Division, 1954); D.D. Little, Aerospace Rescue and Recovery Service, 1946-1981: An Illustrated Chronology (Scott AFB, IL: Office of MAC History, 1983).

- Letter, Deputy Assistant Chief of Air Staff for Operations to ATC Commander, "Organization— Army Air Forces," 1 February 1946, in *History of Air Transport Command, 1 October 1945-31 December* 1946, Volume II, Supporting Document 12. Other primary members of the committee were Colonels G. Blake, D. N. Yates, W. S. Ford, and J. E. Briggs.
- War Department Orders, AG 322, "Redesignation and Assignment of the Army Air Forces Weather Service and the Army Airways Communications System; Establishment of Certain Army Air Forces Activities," 13 March 1946.
- 30. History of Air Transport Command, October 1945-December 1946, p 40.
- 31. *Ibid*, p 37.
- 32. Ibid, pp 39, 40.
- 33. Ibid, p 37.
- 34. War Dept Circular Number 138, "War Department Reorganization," 14 May 1946, as reprinted in R. I. Wolf, ed., The United States Air Force Basic Documents on Roles and Missions (Washington, DC: Office of Air Force History, 1988), p 51.
- 35. Army Air Forces Regulation Number 20-44, 28 June 1946, as quoted in *History of Air Transport Command*, 1 October 1945-31 December 1946, p 10.
- History of Air Transport Command, 1 October 1945-31 December 1946, pp 10, 11; Craven and Cate, The Army Air Forces in World War II, Vol VII, p 575; Hinds, Development of Strategic Airlift, p 7.
- 37. History of Air Transport Command, 1 October 1945-31 December 1946, p 38.
- Ibid, pp 220-223; Hinds, Development of Strategic Alrlift, p 6.
- 39. History of Air Transport Command, 1 October 1945-31 December 1946, pp 220, 221.
- Ibid, pp 86, 87; Hinds, Development of Strategic Airlift, p 6. Later, MATS turned over air bases at Wheelus and Tripoli, Libya; and Dhahran, Saudi Arabia, to the United States Air Forces in Europe on 1 January 1953.
- 41. Statistical History of the Air Transport Command, 29 May 1941-31 May 1948, pp 2, 4, 6, 10.
- 42. Memo, ATC Commander to Assistant Secretary of War for Air, "Consolidation of Services of Army Air Forces Transport Command and Naval Air Transport Service," 6 June 1946, In History of Air Transport Command, 1 October 1945-31 December 1946, Volume II, Supporting Document 15. Also see: R. D. Launius, Consolidation By Decree: The Air Force and Navy Strategic Airlift Merger of 1948 (Scott AFB, IL: Office of MAC History, 1989).
- H. S. Wolk, *Planning and Organizing the Postwar Air* Force (Washington, DC: Office of Air Force History, 1984), pp 61-166; A. Goldberg, ed., *A History of the* United States Air Force (Princeton, NJ: D. Van Nostrand Co., 1957), p 102; Wolf, *Basic Documents* on Roles and Missions, p 62.

- 44. Thomas K. Finletter, who chaired the President's Air Policy Commission in 1947, became the second Secretary of the Air Force on 24 April 1950. He held that position until the January 1953 change of administrations. See: Goldberg, History of the United States Air Force, p 157. President Eisenhower appointed another commission to review aviation policy on 23 September 1953, and it issued its report in May 1954. See: Civil Air Policy, by President's Air Coordinating Committee, May 1954.
- 45. Paper, "Military Air Transport Service," prepared for The Army Almanac, 4 August 1948; T. K. Finletter, et al, Survival in the Air Age: A Report by the President's Air Policy Commission (Washington, DC: Government Printing Office, 1 January 1948); Wolk, Planning and Organizing the Postwar Air Force, pp 162-166.
- 46. Finletter, et al, Survival in the Air Age: A Report by the President's Air Policy Commission, pp 36, 37.
- 47. Ibid, p 141.
- 48. Ibid, p 37.
- 49. Ibid, p 216.
- 50. The lineage of the separate Air Transport Command and the Milltary Airlift Command were formally consolidated on 13 May 1982. This action legitimized MAC's practice of tracing its airlift history to the birth of the Air Corps Ferrying Command on 29 May 1941. See: letter, Headquarters USAF Deputy Director, Manpower and Organization, to MAC Commander in Chief, "Organization Action Affecting Military Airlift Command (DAF/MPM 426q)," 13 May 1982.
- Wolf, Besic Doctrine on USAF Roles and Missions, pp 173-178; Hinds, Development of Strategic Airlift, p 8; Air Transport Command General Order 34, 1 June 1948; Military Air Transport Service General Order 5, Assignment of Naval Air Transport Units, 9 June 1948.
- This subject has been discussed in detail in R. D. Launius and C. F. Cross II, MAC and the Legacy of the Berlin Airlift (Scott AFB, IL: Office of MAC History, 1989).
- 53. "One Year Men See Great Change," apparently an anniversary news release, *circa* 1946; "One Year at Tempelhof Celebrated," an undated news release, *circa* July 1946.
- History of the 301st Troop Carrier Squadron, August 1945.
- 55. R. D. Launius, "The Berlin Airlift: Constructive Air Power," *Air Power History*, (Spring 1989), Vol 36, pp 8-22.
- New York Times, 25 June 1948, p 1; F. Howley, Berlin Command (New York: G. P. Putnam, 1950), pp 196, 197.
- W. P. Davison, *The Berlin Blockade: A Study in Cold War Politics* (Princeton, NJ: Princeton University Press, 1958), pp 27-89; D. F. Harrington, "The Berlin

Blockade Revisited," International History Review, (February 1984), Vol 6, pp 88-112.

- J. E. Smith, ed., The Papers of General Lucius D. Clay, Germany, 1948-1949 (Bloomington: Indiana University Press, 1974), Vol 2, pp 607, 618-21; Howley, Berlin Command, p 121; Launius and Cross, MAC and the Legacy of the Berlin Airlift, pp 4-11; C. E. LeMay with M. Kantor, Mission with LeMay (Garden City, NY: Doubleday and Co., 1965), p 415.
- 59. Hinds, Development of Strategic Airlift, p 9; Historical Airlift Report of Tempelhof Air Force Base, 26 June 1948-31 July 1949.
- 60. Report, Combined Airlift Task Force, "Berlin Mission: Report of the Airlift, the Operations and Internal Aspects of the Advance Element," n.d., pp 18, 19; Launius and Cross, *MAC and the Legacy of the Berlin Airlift*, pp 26-32.
- 61. Hinds, Development of Strategic Airlift, p 9.
- R. D. Launius, "The Hump Airlift Operation of WW II," Airlift: The Journal of the Airlift Operations School, (Fall 1985), Vol 7, pp 8-15.
- 63. Tunner, Over the Hump, p 174.
- 64. The Berlin Airlift: A Brief Chronology (Scott AFB, IL: Office of MAC History, 1988), pp 3, 10, 12.
- Historical Airlift Report of Tempelhof Air Force Base, 26 June 1948-31 July 1949; quote from Tunner, Over the Hump, pp 221, 222.
- 66. Historical Airlift Report of Tempelhof Air Force Base, 26 June 1948-31 July 1949.
- 67. *Ibid*; lists of Berlin Airlift casualties filed in 7350th Air Base Group.
- 68. J. G. Norris, "Airpower in the Cold War," Air Force, (September 1948), Vol 31, pp 25, 26.
- 69. "Exercise Swarmer: The Thunder of a Concept," Air Force, (July 1950), Vol 33, p 20.
- "Airborne Airheaders," Newsweek, (8 May 1950), Vol 35, pp 25, 26.
- 71. Minutes, Military Air Transport Service Daily Conference, 11 April 1950.
- 72. Minutes, Military Air Transport Service Daily Conference, 15 March 1950.
- 73. "Air Force Goes All Out In Proving Power in Exercise Swarmer," The Sunday Star (Washington, DC), 30 April 1950, p A-2. Major General James Gavin, a member of the Weapons System Evaluation Group and former Commander of the 82d Airborne, criticized the 30 April jump of 1,700 paratroopers as not well executed, suggesting their scattering over a four-mile area was the result of a lack of joint training between the troop carrier unit and airborne forces. See: J. G. Norris, "Troop Carrier Forces Weak, Gavin Says," Washington Post, 1 May 1950, p 1.

- 74. "Exercise Swarmer: The Thunder of a Concept," Air Force Magazine, (July 1950), Vol 7, pp 23, 45.
- 75. Critique, "Exercise Swarmer," 5 May 1950, p 24.
- 76. Ibid, p 20.
- 77. Craven and Cate, The Army Air Forces in World War II, Vol VII, p 151.
- R. D. Launius, "Forty Years Ago: MATS and the Korean War Airlift," *Airlift: The Journal of the Airlift Operations School*, (Summer 1990), Vol 12, pp 16-21.
- 79. Hinds, Development of Strategic Airlift, p 10.
- 80. Ibid, p 10; Futrell, The United States Air Force in Korea, 1950-1953 (Washington, DC: Office of Air Force History, 1983 edition), pp 8, 9. The Story of MATS, circa April 1951 (Government Printing Office), p 28, claims four Yak fighters raked the C-54 with machine-gun and cannon fire while "The four-engine transport, motors killing, had been waiting for a signal to take off."
- MATS Facts: Military Air Transport Service, by Headquarters MATS Office of Information Services, (Washington, DC: November 1956).
- 82. Futrell, United States Air Force in Korea, p 12.
- "Military Airlift—A National Resource in Peace and War," circa June 1978; Hinds, Development of Strategic Airlift, pp 10, 11.
- A. Szura, Folded Wings: A History of Transocean Air Lines (Missoula, MT: Pictorial Histories Pub. Co., 1989).
- 85. History of Military Air Transport Service, 1949, p 106; Ravenstein, Lineage and Honors, p 18. The Pacific Air Command, which had been formed as the Hawalian Air Force In 1940 to accommodate the growing number of air units stationed there, was discontinued at the end of May 1949. Since the Pacific Division had just transferred its only stateside base (Fairfield-Suisun, California) to the Strategic Air Command to house a B-36 wing, it gave up control of its transport operations to Hickam AFB, Hawali. The Pacific Air Command had been Seventh Air Force during World War II; it returned to that designation when it was activated as a subordinate unit of the Pacific Air Forces (a separate major command) from 1955-1957 and 1966-1975.
- 86. Paper, "The Development of MAC," circa 1972.
- 87. Hinds, Development of Strategic Airlift, pp 11, 12.
- 88. Futrell, United States Air Force In Korea, pp 160, 161.
- On this subject, see: R. E. Appleman, South to the Naktong, North to the Yalu (Washington, DC: Center for Military History, 1961); M. Hastings, Korea: The Forgotten War (New York: Macmillan, 1986).
- 90. Tunner, Over the Hump, p 253.

- Colonel P. C. Fritz, "Those Wonderful Gooney Birds of Frozen Chosin." Ainlift: The Journal of the Ainlift Operations School, (Winter 1988), Vol 10, pp 10-15.
- 92. Pamphlet, Secretary of the Air Force Office of Information, Internal Information Division, "Military Airlift Background Information," June 1970; Significant Airlift Events of the Korean Conflict, 1950-1953: A Brief Chronology (Scott AFB, IL: Office of MAC History, 1990), pp 27, 28; Launius, "MATS and the Korean War Airlift," p 28.
- 93. See note above; Futrell, United States Air Force in Korea, pp 583, 585.
- 94. Hinds, Development of Strategic Airlift, p 12.
- Finletter, et al, Survival in the Air Age: A Report by the President's Air Policy Commission, pp 99, 105, 106.
- 96. Ibid, p 99.
- 97. Ibid, pp 112-114.
- "Report on Utilization of Airlines for Wartime Airlift and Proposals to Aid Expansion of the Civil Air Fleet," (Washington, DC: Executive Office of the President, National Security Resources Board, 6 December 1950).
- 99. Ibid, p 5.
- 100. Ibid, pp 14, 16, and Appendix, p 11.
- Pamphlet, MAC Information Services, "MATS Facts: Military Air Transport Service," November 1956, p 9.
- 102. F. C. Thayer, Jr., Air Transport Policy and National Security: A Political, Economic, and Military Analysis (Chapel Hiff: University of North Carolina Press, 1965); Major P. Lacombe, "The Air Force and the Airlines," Air Force, February 1985.

Chapter IV

- The Air Resupply and Communications Service was discontinued on 1 January 1954, and the Airways and Air Communications Service absorbed the Flight Service effective 1 October 1956. See: General Orders Number 174, Headquarters Military Air Transport Service, 15 September 1953; General Orders Number 134, Headquarters Military Air Transport Service, 20 September 1956.
- History of the Military Air Transport Service, 1 July 1953-31 December 1953, (Washington, DC: Military Air Transport Service Office of Information Services, Historical Division, 1954), pp 1-5, 11, 12, 16-28, 30, 49-51.
- 3. Essentially, at this time, nonscheduled or supplemental carriers flew irregular routes based upon demands. They had participated in the Berlin Airlift and Korean Conflict, and officials in the Civil Aeronautics Board, Department of Defense, and Congress had publicly recognized their contributions to the Cold War effort. By the 1950s, they had secured an important place in the airline industry next to the scheduled airlines which flew fixed routes.

- 4. Formed in December 1944 as an interdepartmental committee, the Air Coordinating Committee first centered on aviation mobilization requirements, believing national security required a healthy aircraft industry. Prior to the 1955 report, President Harry S. Truman had appointed an Air Policy Commission at the request of the Air Coordinating Committee to formulate a national aviation policy. Reporting in 1947, the commission recommended building the Air Force to 70 groups. For more information, see: Thayer, Air Transport Policy and National Security, p 122, and Futreli, Ideas, Concepts, Doctrine, Vol I, pp 216-218, 225-230.
- 5. Officially known as the Commission on Organization of the Executive Branch of the Government, it was more commonly referenced after its chairman Herbert Hoover. The commission was established by Congress with the approval of President Truman in 1947. Its charter was to reorganize the many departments, bureaus, agencies, boards, commissions, etc. under the executive branch. The commission reported its findings, which covered a wide range of activities, in 1949 and 1955. The commission's comments in *Business Enterprises, Report on Transportation, Transportation, and Business Organization of the Department of Defense* contain recommendations on military airlift.
- Miller, Airlift Doctrine, pp 235, 236; Thayer, Air Transport Policy and National Security, pp 129, 130.
- Commission on Organization of the Executive Branch of Government, Committee on Business Organization for the Department of Defense, Subcommittee on Transportation, *Report on Transportation* (Washington, DC: Government Printing Office, 1955), p 295.
- 8. Ibid.
- 9. Essentially, a fund that is established with an initial amount of money to offset operating expenses. Thereafter, the fund remains solvent through reimbursements which provide the capital for future operating expenses.
- For more background, see: S. L. Rearden, *History of the Office of the Secretary of Defense*, Vol I: *The Formative Years*, 1947-1950, (Washington, DC: Office of the Secretary of Defense Historical Office, 1984), pp 39, 52, 53.
- History of the Military Air Transport Service, 1 January-30 June 1956, (Washington, DC: Military Air Transport Service Office of Information Services, Historical Division, 1956), p 4, 5; Thayer, Air Transport Policy and National Security, p 151.
- Chronology, Military Air Transport Service Deputy Chief of Staff, Comptroller, "Summary of Actions Taken by Military Air Transport Service with Respect to Industrial Funding," 26 November 1956; History of the Military Air Transport Service, 1 July-31 December 1956 (Washington, DC: Office of Information Services, Historical Division, 1957), p 2.
- 13. Ever since World War II, the military had an ongoing debate over the consolidation of air transport

resources under a single manager. In September 1945, General Hoyt Vandenburg had recommended to the Chief of the Air Staff the assignment of all air transport activities under one Army Air Forces Command. His plan centered around the consolidation of the Air Transport Command and the Troop Carrier Command. The idea to consolidate air transport advanced in 1948 with the establishment of MATS from the Air Transport Command and the Naval Air Transport Service. In 1953, a USAF Air Transport symposium had proposed reorganizing air transport assets into a Combat Air Services Command and the Military Air Transport Service. It also recommended studying the industrial fund concept. By September 1954, the Air Council had three reorganizational plans under review: a Headquarters USAF study and studies by Generals Laurence Kuter and William Tunner, a former and future MATS commander, respectively. Both Kuter and Tunner advocated placing all transport activities under one command; the Air Staff study was less radical, avoiding service and Air Force controversies. The ensuing Hoover Commission recommendations enabled the Defense Department to overcome internal difficulties, paving the way for the single manager directive for airlift. For more background, see: History of the Military Air Transport Service, 1 January-30 June 1957 (Washington, DC: Office of Information Services, Historical Division, 1957), pp 90-99.

- 14. Facing renewed pressure to adopt industrial funding for air transport activities by a House Appropriations Committee report (Scrivner Report, June 1953) and a Senate Armed Services Committee subcommittee report (Flander's Report, 1954) on the eve before the second Hoover Commission published its recommendations, as well as finding internally that its own Advisory Committee on Fiscal Organization and Procedures (the Cooper Committee Report, July 1954) and that Defense Comptroller Wilfred McNeil favored industrial funding, the Department of Defense agreed to implement industrial funding. For further background on Industrial funding in Military Air Transport Service, see: J. L. True and W. E. Nawyn, The Airlift Service Industrial Fund, 1958-1988: The Evolution of an Effective Management Approach, (Scott AFB, IL: Office of History Military Airlift Command, 1989).
- Department of Defense Directive 5160.2, "Single Manager Assignment for Airlift Service," 7 December 1956.
- 16. History of the Military Air Transport Service, 1 January-30 June 1957, pp 100-106; History of the Military Air Transport Service, 1 January-30 June 1958 (Scott AFB, IL: Office of Information Services, Historical Division, 1959), pp 168-172; Headquarters Military Air Transport Service, "Airlift Service Management Report, July 1958-June 1959," p i.
- 17. "Airlift Service Management Report, July 1958-June 1969," p 10.
- Department of Defense Directive 5160.2, "Single Manager Assignment for Airlift Service," 7 December 1956.

- History of the Military Air Transport Service, 1 January-30 June 1957, pp 100-109; briefing, "Single Manager," Military Air Transport Service Commanders Conference, June 1957; History of the Military Air Transport Service, 1 January-30 June 1958, p 1.
- 20. General Orders Number 56, Headquarters Military Air Transport Service, 24 April 1958. In November 1952, Military Air Transport Service had requested USAF approval to redesignate its air transport divisions as numbered air forces. Military Air Transport Service officials had sought the change, arguing that MATS' divisions were equivalent to the numbered air forces of the other major commands and had similar functions and responsibilities. Headquarters USAF denied the request, stating that it was Air Force policy to name numbered air forces only when they performed an essentially tactical mission. See: History of the Military Air Transport Service, 1 January-30 June 1953 (Washington, DC: Office of Information Services, Historical Division, 1954), pp 16, 17.
- 21. General Orders Number 159, Headquarters Military Air Transport Service, 5 November 1958; effective by General Orders Number 49, Headquarters USAF, 26 August 1958. Prior to this, in November 1956, the Pacific Division had moved its headquarters from Hickam AFB, Hawaii, to Parks AFB, California. See: General Orders Number 160, Headquarters Military Air Transport Service, 16 November 1956. Throughout the period until its inactivation in July 1958, the Continental Division had its headquarters at Kelly AFB, Texas. The Atlantic Division had its headquarters at Westover AFB, Massachusetts, and then moved to McGuire AFB, New Jersey, in June 1955. See: History of the Military Air Transport Service, 1 January-30 June 1955 (Washington, DC: Office of Information Services, Historical Division, 1956), pp 182-184.
- 22. History of the Military Air Transport Service, 1 July-31 December 1957 (Scott AFB, IL: Office of Information Services, Historical Division, 1958), pp 111, 112; History of the Military Air Transport Service, 1 January-30 June 1958, p 9. Originally, the command desired to stay in the Washington, DC, area, but overcrowding in the DC area as well as the influence of Illinois Congressmen Everett Dirksen and Melvin Price largely determined the move.
- History of the Military Air Transport Service, 1 January-30 June 1956, pp 4, 5; U.S. Congress, House, Committee on Appropriations, Department of the Air Force Appropriations for 1957, Hearings before Subcommittee, 84th Cong., 2nd Sess., 1956; U.S. Congress, House, Committee on Appropriations, Department of Defense Appropriations for 1957, 84th Cong., 2nd Sess., House Report 2104, 1956.
- U.S. Congress, House, Committee on Appropriations, Department of Defense Appropriations for 1958, Hearings before the Subcommittee, 85th Cong., 1st Sess., 1957; U.S. Congress, Senate, Committee on Appropriations, Department of Defense Appropriations for 1958, Hearings before the Subcommittee, 85th Cong., 1st Sess., 1957; U.S. Congress, Senate, Committee on Appropriations, Department of Defense Appropriations for 1958, 85th Cong., 1st Sess., Senate Report 543, 1957; Public Law 85-117, 2 August 1957.

- 25. The ballment program was designed to test the commercial carriers' abilities to operate under emergency conditions similar to what was done in World War II. Announced late in 1957, the Air Force, through Military Air Transport Service, sought to lease ten military transports to the commercial carriers. The alriines were required to operate these planes on normal military traffic schedules, guarantee the availability of both airplanes and crews for training exercises and war, and agree to fly them within combat zones. The ten planes, however, were five C-54s for Atlantic operations and five C-118s for Pacific operations. With the commercial carriers possessing more modern airplanes than the C-54s and with the Military Air Transport Service in the process of retiring its fleet of C-54s, the value of the bailment program appeared questionable. Furthermore, labor representatives regarded the program as a way for the government to get around current union wages, maintaining that airline companies bidding on the proposal would have to offer low bids and hence have to secure non-union agreements from their employees. Although the Air Force had not intended to engage in "union-busting" practices or circumvent its normal commercial contracting process, the program gave such an appearance to many, and the Air Force quickly withdrew the proposal for further consideration. See: History of the Military Air Transport Service, 1 July-31 December 1957, pp 136-140.
- U.S. Congress, House, Committee on Government Operations, *Military Air Transportation*, Hearings before the Subcommittee, 85th Cong., 2nd Sess., 1958.
- U.S. Congress, Senate, Committee on Commerce, Study of Military Air Transport Service, Hearings before Subcommittee, 85th Cong., 2nd Sess., 1958.
- U.S. Congress, House, Committee on Armed Services, Report of Special Subcommittee Number 4, Investigation of Netional Defense: Phase II, 85th Cong., 2nd Sess., 1958.
- 29. Public Law 85-724, 22 August 1958.
- U.S. Congress, Senate, Committee on Appropriations, Department of Defense Appropriations for 1960, 86th Cong, 1st Sess., 1959; Congressional Record, 13 July 1959, p 12027; Congressional Record, 14 July 1959, pp 13302, 13307, 13314-13316; Public Law 86-166, 18 August 1959.
- U.S. Congress, House, Committee on Armed Services, Report of Special Subcommittee Number 4, Investigation of National Defense: Phase II, 85th Cong., 2nd Sess., 1958.
- History of the Military Air Transport Service, 1 July-31 December 1958, (Scott AFB, IL: Office of Information, Historical Division, 1959), pp 114-117.
- U.S. Congress, House, Committee on Armed Services, Special Subcommittee on National Military Airlift, Hearings before Special Subcommittee on National Military Airlift, 86th Cong., 2nd Sess., 1960.
- 34. Department of Defense, The Role of Military Air Transport Service in Peace and War, February 1960.

- History of the Military Air Transport Service, 1 July 1962-30 June 1963 (Scott AFB, IL: Directorate of Information, Historical Services and Research Division, 1964), pp 86-89.
- History of the Military Air Transport Service, 1 July-31 December 1956 (Washington, DC: Office of Information Services, Historical Division, 1957), pp 152-164.
- Futrell, Ideas, Concepts, Doctrine, Vol I, pp 611, 612; Burkard, Military Airlift Command, p 5; History of the Military Air Transport Service, 1 July 1958-31 December 1958, pp 83, 99, 100.
- Futrell, Ideas, Concepts, Doctrine, Vol I, pp 612, 613; Burkard, Military Airlift Command, p 5; History of the Military Air Transport Service, 1 July 1958-31 December 1958, pp 100, 110, 113, 114.
- History of Headquarters United States Air Forces in Europe, 1 July-31 December 1961 (Headquarters USAFE, Office of Information, Historical Division, 1962), pp 151-160; History of the Military Air Transport Service, 1 July 1962-30 June 1963, pp 159-168; History of the Military Air Transport Service, 1 July-31 December 1963, p 155.
- History of the Military Air Transport Service, 1 July-31 December 1961 (Scott AFB, IL: Directorate of Information, Historical Division, 1962), pp 171-173, 175.
- 41. "Summary of MATS Contribution to the Cuban Crisis Requirements," Military Air Transport Service Directorate of Information, Historical Services and Research Division, 5 December 1962; "WESTAF Chronology of the Cuban Crisis," December 1962; Burkard, Military Airlift Command, p 6; General J. W. Kelly, "MATS Looks At The Cuban Crisis," Air University Review, September-October 1963, pp 2-20.
- 42. History of the Military Air Transport Service, 1 January-30 June 1953, p 235; History of the Military Air Transport Service, 1 July-31 December 1953, pp 233, 234.
- History of the Military Air Transport Service, 1 January-30 June 1954 (Washington, DC: Office of Information Services, Historical Division, 1955), p 225; History of the Military Air Transport Service, 1 July-31 December 1954 (Washington, DC: Office of Information Services, Historical Division, n.d.), pp 106-108.
- History of the Military Air Transport Service, 1 July-31 December 1956, pp 164-170; History of the Military Air Transport Service, 1 January-30 June 1957, pp 84, 85; "Air Fleet Flew Historic Errand of Mercy," Dougles Airview News, 21 January 1957, pp 1, 8.
- C. L. Reynolds, A Chronology of Humanitarian Airlift (Scott AFB, IL: Office of MAC History, 1976), pp 4-15.
- 46. Presentation, Lieutenant General William H. Tunner, Military Air Transport Service Commander, before the House Armed Services Committee Special Subcommittee on National Airlift, *Military Air Transport Service Report on Exercise BIG SLAM and BIG SLAM/PUERTO PINE*, 20 April 1960.

- 47. These exercises were part of the White-Lemnitzer Agreement of March 1960 whereby the Army would specify the forces and closure times for a limited-war deployment, and the Air Force would attempt to secure sufficient airlift to support Army mobility requirements. The agreement between the two chiefs of staff attempted to deal with the problem of defining wartime airlift requirements after Army Chief of Staff Lyman L. Lemnitzer had voiced his dissatisfaction. Lemnitzer wanted enough strategic airlift to move at least two reinforced battle groups and their combat equipment to any trouble spot in the world within hours of the movement order; enough airlift to move within days troops and supplies to build a full division with the necessary logistical support, and enough airlift to expand the size of the fighting force to two divisions within two to four weeks. For more information, see: Futrell, Ideas, Concepts, Doctrine, Vol II, pp 16-21.
- 48. History of the Military Air Transport Service, 1 January-30 June 1961 (Scott AFB, IL: Directorate of Information, Historical Division, 1962), pp 73, 75, 85, 110, 115.
- 49. History of the Military Air Transport Service, 1 January-30 June 1962 (Scott AFB, IL: Directorate of Information, Historical Services and Research Division, 1963), pp 92, 93, 98.
- History of the Military Air Transport Service, 1 July-31 December 1963 (Scott AFB, IL: Directorate of Information, Historical Services and Research Division, 1964), pp 102-104, 118.
- History of the Military Air Transport Service, 1 January-30 June 1964 (Scott AFB, IL: Directorate of Information, Historical Services and Research Division, 1965), pp 217, 218, 220, 222.
- 52. History of the Military Air Transport Service 1 July-30 December 1953, pp 54-57.
- 53. Ibid.
- U.S. Congress, House, Committee on Armed Services, Report of Special Subcommittee Number 4, *Investigation of National Defense: Phase II*, 85th Cong., 2nd Sess., 1958.
- U.S. Congress, Senate, Committee on Appropriations, Department of Defense Appropriations for 1959, 85th Cong., 2nd Sess., Senate Report 1937, 1958; U.S. Congress, Senate, Committee Appropriations, Department of Defense Appropriations for 1959, 85th Cong., 2nd Sess., 1958; Public Law 85-724, Section 634, 22 August 1958.
- An aircraft capable of rear loading through the use of swing doors.
- 57. Miller, Airlift Doctrine, pp 248, 249.
- U.S. Congress, House, Committee on Government Operations, Subcommittee on Military Operations, *Military Air Transportation*, 86th Cong., 1st Sess., 1959.
- 59. Ibid.

- 60. This was also the period of the NEW LOOK national security policy which placed great reliance on Navy and Air Force forces over Army ground forces and provided for a massive atomic retaliation in the event of war. Admiral Radford was a firm supporter of this policy.
- U.S. Congress, House, Committee on Armed Services, Special Subcommittee on National Military Airlift, Hearings before Special Subcommittee on National Military Airlift, 86th Cong. 2nd Sess., 1960; Thayer, Air Transport Policy and National Security, pp 136-139; Air Force Pamphlet 190-2-2, Vol III, 1 June 1964, p 26; Burkard, Military Airlift Command: Historical Handbook, 1941-1984, p 97.
- U.S. Congress, House, Committee on Armed Services, Special Subcommittee on National Military Airlift, Hearings before Special Subcommittee on National Military Airlift, 86th Cong. 2nd Sess., 1960.
- U.S. Congress, House, Committee on Appropriations, Department of Defense Appropriations for 1961, 86th Cong., 2nd Sess., Part 7, 1960; U.S. Congress, House, Committee on Appropriations, Department of Defense Appropriations for 1961, 86th Cong., 2nd Sess., House Report 1561, 1960; U.S. Congress, Senate, Committee on Appropriations, Department of Defense Appropriations for 1961, 86th Cong., 2nd Sess., 1960; Public Law 86-601, Section 531, 7 July 1960; Congressional Record, 30 June 1960, pp 14105, 14106.
- 64. Miller, Airlift Doctrine, p 276.
- Futrell, Ideas, Concepts, Doctrine, Vol II, p 30; W. L. Kraus and J. M. Matheson, C-141 Starlifter (Scott AFB, IL: Office of MAC History, 1973), pp 24, 34.
- 66. History of the Military Alr Transport Service, 1 July 1957-31 December 1957, pp 79-85.
- History of the Military Air Transport Service, 1 July-30 December 1960 (Scott AFB, IL: Directorate of Information, Historical Division, 1961), p 176; History of the Military Air Transport Service, 1 January-30 June 1961, pp 3, 4; Air Force Regulation 23-17, "Organization—Field, Military Air Transport Service," 23 February 1961.
- 68. During this period, Headquarters Milltary Air Transport Service defined airborne operations as a "single aircraft airlanded assault into, and air evacuation of forces from prepared air strips." See: Military Air Transport Service Regulation 23-1, "Organization – MATS Air Forces and Services, Western Transport Air Force (WESTAF)," 15 April 1959.
- For more information on Military Air Transport Service/Military Airlift Command's airdrop training competition, see: J. S. Underwood, Airlift Rodeo: A Brief History of Airlift Competitions, 1961-1989 (Scott AFB, IL: Office of MAC History, 1990).
- History of the Military Alr Transport Service, 1 January-30 June 1962, pp 64, 65; History of the Military Air Transport Service, 1 July 1962-30 June 1963, pp 1, 199.

- Military Air Transport Service Regulation 23-1A, "Organization—MATS Air Forces and Services, Western Transport Air Force (WESTAF)," 20 July 1962.
- 72. Air Force Regulation 23-17, "Organization and Mission—Field, Military Air Transport Service," 9 July 1963; Air Force Regulation 23-17A, "Organization and Mission—Field, Military Air Transport Service," 25 May 1964.
- 73. History of the Military Air Transport Service, 1 January-30 June 1962), p 6.
- 74. Ibid, pp 6-11; Headquarters Military Air Transport Service, "Commander's Call Supplement for July '62."
- History of the Military Air Transport Service, 1 July 1962-30 June 1963, pp 2, 3, 10, 11; History of the Military Air Transport Service, 1 July 1964-30 June 1965 (Scott AFB, IL: Directorate of Information, Historical Services and Research Division, 1968), p 30.
- 76. This action was part of General LeMay's CLEARWATER concept which tested a dual forward and rear basing. Units would have their main operating base in the United States and then rotate to bases in Europe, marrying up with prepositioned equipment. Tested in October 1963 when Military Air Transport Service moved 15,000 troops of the 2d Armored Division from Texas to Germany in 63 hours, the Department of Defense and the Air Force proceeded with plans to transfer C-130s from Europe in 1964. The concept, with regard to the Military Air Transport Service, called for the consolidation of alrift resources. For more information, see: Futrell, Ideas, Concepts, Doctrine, Vol II, p 122.
- History of the Military Air Transport Service, 1 July-30 December 1963, pp 10, 11; History of the Military Air Transport Service, 1 January-30 June 1964, pp 38-45.

Chapter V

- 1. These years represent the main period of American involvement in Vietnam. In reality, the United States' interest dated to the last months of World War II when American agents joined insurgent forces led by Ho Chi Minh. In February 1950, the French government formally requested military assistance from the United States to aid the Indochina war. Reevaluating the situation, President Truman's Administration concluded that the French needed support to prevent the Communists from taking over all of Southeast Asia, and in May President Truman approved \$10 million for French Indochina. American military advisors went to Vietnam that summer. After Dien Bien Phu, President Eisenhower decided in February 1955 to send military personnel to help train the South Vietnamese army. Thereafter, the Kennedy Administration increased military assistance to Southeast Asia as well.
- 2. History of the Military Air Transport Service, 1 July 1964-30 June 1965, pp 119-131.

- 3. This is a mechanized cargo-handling system that permitted rapid loading and unloading of aircraft.
- 4. History of the Military Air Transport Service, 1 July 1964-30 June 1965, pp 121, 147, 150.
- Kraus and Matheson, C-141 Starlifter, p 402. Also, see: H. H. Martin, Starlifter (Brattleboro, VT: Greene, 1972).
- 6. History of the Military Air Transport Service, 1 July 1964-30 June 1965, pp 169, 170.
- Ibid, p 172; Miller, Airlift Doctrine, p 305. Also, see: Rice, The C-5A Scandal: An Inside Story of the Military-Industrial Complex (Boston: Houghton Mifflin, 1971).
- 8. House Committee on Armed Services, Special Subcommittee on Military Airlift, *Military Airlift*, 89th Congress, 1965-1966, pp 6616, 6617.
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- 10. History of the Military Air Transport Service, 1 July 1964-30 June 1965, pp 308, 309.
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- 14. Ibid, p 490; History of the Military Airlift Command, 1 July 1971-30 June 1972, p 56; pamphlet, C-5 (Marietta, GA: Lockheed-Georgia Co., n.d.), p 3. Cracks in the wings of the C-5As limited the actual capability to about half of this figure. The C-5B, which entered service in the late 1980s, with larger, stronger wings, had a capacity of well over the original 220,000 pounds.
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- 18. History of the Military Airlift Command, 1 July 1965-30 June 1966, pp 310, 507; History of the

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- 72. History of the Military Airlift Command, 1 July 1965-30 June 1966, pp 568, 569.
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- 75. History of the Military Airlift Command, 1 July 1965-30 June 1966, p 560.
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- 77. Ibid.
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Chapter VI

- 1. History of the Military Airlift Command, 1 July 1972-30 June 1973 (Scott AFB, IL: Office of MAC History, 1974), pp xxiii, 47, 48, 77.
- 2. For the record, 600 American and third-country POWs were released: 566 American service personnel, 25 United States civilians, and 9 third-country nationals. Of these, MAC airlifted 597 to Clark Air Base, Philippines, and then moved 591 on to the United States. See: *History of the Military Airlift Command*, 1 July 1972-30 June 1973, pp 52, 53.
- 3. *Ibid*, pp 51-54; C. W. Dickens, "Homecoming," *Airlift Operations Review*, January 1980, pp 24-26.
- 4. Dickens, "Homecoming," pp 26, 27; Lieutenant Colonel J. F. Ohlinger and Major F. H. Baerenz, *History* of Operation HOMECOMING, 6 September 1971 to 27 July 1973, (Clark AB, RP: Headquarters Thirteenth Air Force, *circa* 1973), pp VII-5.
- 5. Dickens, "Homecoming," p 29.
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- 7. For example, between April 1973 and April 1975, the United States conducted an airlift resupply operation into Cambodia. This was the largest sustained airlift operation since the Berlin Airlift. The survival of Cambodia's capital city, Phnom Penh, and important but isolated provincial enclaves depended upon airlift to bring in life-sustaining rice, ammunition, petroleum, oil, and other critical supplies. During this period, Bird Air, a private aviation company under MAC contract, flew most of the 5,413 airland/airdrop missions, delivering 123,631 tons of cargo under hostile conditions. During the later stages of the airlift, five commercial carriers-Airlift International, Flying Tigers, Seaboard World, Trans International, and World Airways-augmented the airlift, transporting 36,264 tons on 770 missions. See: History of the Military Airlift Command, 1 July 1974-31 December 1975, pp 192, 197, 198.
- 8. Ibid, p 193.
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- 11. Operation FREQUENT WIND, formerly nicknamed TALON VISE, provided for military support to the State Department for the protection and evacuation of American noncombatants and designated aliens from South Vietnam.
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- 13. History of the Military Airlift Command 1 July 1974-31 December 1975, pp 208, 213.
- 14. *Ibid*, p 213; background paper, Headquarters MAC, Deputy Chief of Staff for Operations, "SEA Evacuation," n.d.
- 15. History of the Military Airlift Command, 1 July 1974-31 December 1975, p 218. Commercial contract airlines participating were: American Airlines, Airlift International, Braniff International Airways, Capitol International Airways, Eastern Air Lines, The Flying Tiger Line, Northwest Airlines, Overseas National Airways, Pan American World Airways, Trans World Airlines, United Air Lines, and World Airways.
- 16. *Ibid*, pp 221, 222.
- History of the Military Airlift Command, 1 July 1973-30 June 1974 (Scott AFB, IL: Office of MAC History, 1975), p 140; C. W. Dickens, "The Israell Airlift of Oct-Nov 1973," Airlift Operations Review, October 1979, pp 27, 28.
- 18. Initially, the United States sought to keep its military and commercial aircraft out of the conflict to preserve its relations in the Middle East. But it soon became apparent that Israel's small air fleet could not handle the task. United States commercial carriers were unwilling to partake in an airlift to Israel, voicing concerns over aircraft damage, financial losses, and Arab opposition. The Defense Department considered activating the Civil Reserve Air Fleet but did not. In the end, the commercial carriers flew other military routes, freeing the military – Military Airlift Command—to fly to Israel. For more background, see: K. L. Patchin, *Flight to Israel* (Scott AFB, IL: Office of MAC History, 1974).
- 19. Primarily, Charleston Air Force Base, South Carolina; Grissom Air Force Base, Indiana; McGuire Air Force Base, New Jersey; Dover Air Force Base, Delaware; Robins Air Force Base, Georgia; Wright-Patterson Air Force Base, Ohio; Little Rock Air Force Base, Arkansas; Pope Air Force Base, North Carolina; Kirtland Air Force Base, New Mexico; McConnell Air Force Base, Kansas; and Norfolk Naval Air Station, Virginia.
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- 22. Patchin, *Flight to Israel*, p 250. These figures differ slightly from the ones in the annual history which were based upon computer listings. The study used the logs prepared at the cargo destination which were taken from the aircraft manifest document.
- 23. *Ibid*, p 253.
- 24. Ibid, pp 51, 125, 250, 251.
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- History of the Military Airlift Command, 1 January-31 December 1980 (Scott AFB, IL: Office of MAC History, 1982), pp 318, 320; History of the Military Airlift Command, 1 January-31 December 1977 (Scott AFB, IL: Office of MAC History, 1978), p 159.
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- 42. Miller, Airlift Doctrine, pp 348, 350.
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- 44. Article, General P. K. Carlton, "The Airlift Dollar," The Air Reservist, April 1975, p 6.
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- 42. Ibid, pp 6, 7.
- 43. History of the Military Airlift Command, 1 January 1986-31 December 1987, pp 44, 45.
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APPENDIX I

COMMANDERS, 1941-1991

BRIGADIER GENERAL ROBERT OLDS Air Corps Ferrying Command, 29 May 1941-late March 1942



Robert Olds was born on 15 June 1896 in Woodside, Maryland. On 15 January 1917, after one year of high school and five years in the automobile business, Olds enlisted in the Aviation Section of the Signal Enlisted Reserve Corps at Fortress Monroe, Virginia. In less than six months, he learned to fly, became a rated reserve military aviator, received a commission as a first lieutenant, and assumed command of the 17th Aero Squadron at Kelly Field, Texas. For the next 20 years, Olds built a strong background in training, serving as instructor at Scott Field, Illinois, and Ellington Field, Texas, and as the Officer in Charge of Training at Clermont Ferrand, France, the aviation Instruction center in the American Expeditionary Forces for bombardment aviation. After graduating in 1928 from the Air Corps Tactical School at Langley Field, Virginia, he remained at that station for three years as Director of Correspondence Courses and Director of the Extension Course Department. In 1931, Olds became operations officer for the 2d Bombardment Group, General Headquarters Air Force, Langley Field. Thereafter, in 1933, he enrolled in the Command and General Staff School. in 1937, Olds returned to Langley as Commander of the 2d Bombardment Group, serving as group commander for seven B-17 bombers on the historic goodwill flight to Brazil in February 1938. Involved in testing and evaluating the B-17 Flying Fortress, he set a series of altitude and non-stop transcontinental flight records, demonstrating the value of this aircraft as an offensive weapon. Because of his expertise in long distance navigation, on 29 May 1941, Olds accepted the challenge of organizing the

Air Corps Ferrying Command to ferry planes from Canada to England. His duties entailed establishing ground installations on both sides of the Atlantic and setting up an extensive flying force to deliver the planes. On 9 June, the first aircraft left the factory for overseas delivery under the new command. By March 1942, Old's ferrying services (for aircraft, passengers, mail, and miscellaneous cargo) had grown beyond the original route between Canada and Britain to include South America, Africa, and India, with plans underway for the Pacific and Alaskan routes.

LIEUTENANT GENERAL HAROLD L. GEORGE Ferrying Command, 1 April-19 June 1942 Air Transport Command, 20 June 1942-19 September 1946

Born 19 July 1893 in Somerville, Massachusetts, Harold L. George earned a law degree from The George Washington University (then National University) before beginning his military service career. Commissioned on 21 May 1917 after completing Officers' Training Camp at Fort Myer, Virginia, he was assigned to active duty in the Cavalry Section, Officers Reserve Corps, on 5 June. Within the year, George secured his discharge from the Cavalry and enlisted as a private first class in order to become a flying cadet with the Aviation Section of the Signal Reserve Corps. On 29 March 1918, he earned his wings and a commission as a second lieutenant at Love Field, Texas. After flying combat missions in France with the 163d Day Bornbardment Squadron, he was honorably discharged in April 1919. In July 1920, George was commissioned a second lieutenant in the Regular Army and promoted to first lieutenant on that same day. For the next 20 years, he held various operational and command positions, including instructor at the Air Corps Tactical School at Maxwell Field, Alabama, and Commanding Officer of the 2d Bombardment Group, General Headquarters Air Force, at Langley Field, Virginia. In July 1941, George was appointed Assistant Chief of the Air Staff for War Plans, Washington, DC, to help prepare for war against Germany, and assumed command of the Ferrying Command, later Air Transport Command, on 1 April 1942. During his tenure, George extended the Ferrying Command's network for moving planes, men, and supplies around the world. He oversaw massive air transport operations such as the "Hump," the India-China supply line; Green Project, returning men



and equipment to the United States from Europe; and White Project, ferrying aircraft from the European to the Pacific theater.

MAJOR GENERAL ROBERT M. WEBSTER Air Transport Command, 20 September 1946-30 June 1947



Robert M. Webster was born on 19 October 1892 in Boston, Massachusetts, and enlisted as a flying cadet on 21 February 1918. In October 1918, he was commissioned with the temporary rank of second lieutenant and was stationed at the Aerial Gunnery School, Carlstrom Field, Florida. Early duties provided experience in support, training, operations, and command. During the first ten years of his career, Webster's assignments were primarily in support areas, including supply officer both in the continental United States and at Camp Nichols, Philippine Islands. He returned to the United States in December 1928 and became an instructor with the Connecticut National Guard. In 1934, he graduated from the Air Corps Tactical School at Maxwell Field, Alabama, and remained there as an instructor. Later, he was assigned as the Chief of the Training Section, Training and Operations Division, in the Office of the Chief of Air Corps. In March 1942, Webster moved into the final phase of his career with his assignment to the Operations Division in the War Department General Staff. Five months later, he was named Commanding General of the First Air Support Command at Mitchel Field, New York, and remained there until April 1943, when he assumed command of the 42d Bombardment Wing in the Mediterranean theater of operations. Subsequently, Webster served as Deputy Commander of the Twelfth Air Force and Commander of the First Tactical Air Force, which included all French air units fighting in the war against Germany in addition to the American fighter and bomber units. In 1945, he was given command of the Air Transport Command's European Division. He returned to

the United States in July 1946 to serve as Deputy Commander and, in September, as Commander of ATC, during which time he supervised the command's transition to peacetime operations and the addition of the technical services.

MAJOR GENERAL ROBERT W. HARPER Air Transport Command, 1 July 1947-31 May 1948

Born on 7 November 1900 in Seattle, Washington, Robert W. Harper graduated from the United States Military Academy in 1924 as a second lieutenant in the Infantry. In September 1925, he entered the Air Corps Primary Flying School at Brooks Field, Texas, and returned there in 1927 as the Assistant Operations Officer, later assuming duties as Secretary of the School. In May 1928, Harper formally transferred from the Infantry to the Air Corps. He went to Nichols Field, Philippine Islands, in December 1930 for duty with the 4th Composite Group and transferred to the 3d Pursuit Squadron at Clark Field the next year. Returning to the United States in 1932, Harper served at Chanute Field, Illinois, where he became Post Adjutant in July 1934. Thereafter, he completed the Air Corps Tactical School at Maxwell Field, Alabama; the Chemical Warfare School at Edgewood Arsenal, Maryland; and the Command and General Staff School at Fort Leavenworth, Kansas. In 1938, Harper returned to the United States Military Academy where he served a four-year assignment as a tactics officer. In 1942, he was assigned to Headquarters Army Air Forces in Washington, DC, as Assistant Chief of the Air Staff for Operations and later as Assistant Chief of the Air Staff for Training. Harper was sent overseas in September 1944 to represent the Army Air Forces on the Allied Control Commission, established for the administration of Germany. There he served as Director of the Air Control Council Group; as Chief of the Air Division, Group Control Council; and finally, as Director of the Armed Forces Division in the Office of Military Government in Germany. Returning to the United States in 1947, Harper spent a month in the War Department and at Headquarters Air Force before assuming



command of the Air Transport Command, where he oversaw the establishment of the Military Air Transport Service.

LIEUTENANT GENERAL LAURENCE S. KUTER Military Air Transport Service, 1 June 1948-14 November 1951



Laurence S. Kuter was born in Rockford, Illinois, on 28 May 1905. Graduating from the United States Military Academy on 14 June 1927 as a second lieutenant in the Field Artillery, Kuter served with the 76th Field Artillery until he was detailed to the Air Corps Primary Flying School in July 1929. After completing the Air Corps Advanced Flying School in 1930, Kuter was assigned as the operations officer in the 49th Bombardment Squadron, the 2d Bombardment Group, and the 2d Bombardment Wing at Langley Field, Virginia. From 1934 to 1939, he held several assignments in operations and training, including Army Air Corps airmail operations. Kuter also instructed at the Air Corps Tactical School at Maxwell Field, Alabama. From 1939 to 1942, he was a member of the War Department General Staff. Assigned to the Operations and Training Division in 1942, Kuter was a driving force behind the expansion of the Army Air Corps and co-authored the basic plan for the organization and employment of air power in World War II. Later, he participated in the reorganization of the War Department. After a short tour in 1942 as Deputy Chief of the Air Staff, Headquarters Army Air Forces, Kuter was posted to active field duty in England and Africa, including time as the American Deputy Commander, Northwestern African Tactical Air Force, during the Tunisian Campaign. Called back to the States in June 1943, he served as General Arnold's Assistant Staff Officer for Air War Plans and Combat Operations until 1945. While in the Marianas as Deputy Commander of Army Air Forces, Pacific Ocean Area, Kuter organized the United States Army Strategic Air Forces In

the Pacific. In September 1945, he returned to the United States. First given the task of consolidating several of the Air Transport Command's wartime units for peacetime operations, he later assumed command of the newly organized Atlantic Division. From there, Kuter entered the diplomatic service in 1948 with his appointment as United States Minister to the Council of the International Civil Aviation Organization. In March 1948, he became first Commander-designate of the proposed Military Air Transport Service and then its Commander on 1 June—in time to lead MATS through the Berlin Airlift and the beginning of the Korean War. Also, during Kuter's tenure, MATS acquired the C-124 Globernaster II and aeromedical evacuation responsibilities.

LIEUTENANT GENERAL JOSEPH SMITH Military Air Transport Service, 15 November 1951-30 June 1958

A native of Scranton, Pennsylvania, Joseph Smith was born on 31 October 1901. He graduated from the United States Military Academy on 12 June 1923 as a second lieutenant in the Cavalry and served in the 8th Cavalry at Fort Bliss, Texas. Four years later, in November 1927, he entered the Air Corps Primary Flying School at Brooks Field, Texas, Smith formally transferred to the Army Air Corps in January 1929 while assigned to the 66th Service Squadron at Camp Nichols, Philippine Islands. His career subsequently included such assignments as pilot with the Army Air Corps mail operations in 1934; Senior Air Force Member of the Joint War Plans Committee, Joint Chiefs of Staff, in 1943; and Chief of Staff of both the Third Air Force in Tampa, Florida (1944), and the 20th Bomber Command in India which became the Eighth Air Force when it moved to Okinawa. Smith returned to the United States in January 1946 as Chief of Staff of the Air University at Maxwell Field, Alabama. In August, he reactivated the Air Tactical School when it moved to Tyndall Field, Florida, and served as its first commandant. In 1947, Smith assumed command of Wiesbaden Military Post, Germany. While serving in that capacity, he was named Project Commander to organize the 1948 Berlin Airlift operation, and he set up the basic traffic pettern and mode of operation. In 1949, Smith returned to Washington, DC, to serve on the Air Staff in several capacities, including Director of Plans during the North Atlantic Treaty Organization's early development for the air defense of Europe. In November 1951, he assumed command of the Military Air Transport Service. Under his leadership, MATS



became the single manager operating agency for airlift. During his tenure, MATS was involved in airlift operations for the Korean Conflict, including the return of American prisoners of war; the Suez Canal crisis, the airlift of United Nation forces; Operation SAFE HAVEN, the transportation of Hungarian refugees to the United States; and medical evacuations of French legionnaires from Saigon. MATS also acquired the C-133 Cargomaster at this time.



William Henry Tunner, born 14 July 1906 in Elizabeth, New Jersey, graduated from the United States Military Academy in June 1928 and from advanced flying school at Kelly Field, Texas, one year later. In 1942, Tunner was appointed Commander of the Ferrying Division of the Air Transport Command, where he supervised the delivery of 10,000 planes monthly from the factory to Allied forces. Later, in 1944, he commanded the India-China Division of the Air Transport Command, which supplied China by air across the Himalayas. After the war, Tunner assumed command of the Air Transport Command's Atlantic Division and in 1948 served initially as the Deputy Commander for Air Transport of the newly organized Military Air Transport Service. Later that year, he received orders to go to Wiesbaden, Germany, to direct the Allied Berlin Alrlift operation, where he initiated a new "straight-in approach" landing technique that enabled aircraft to land in Berlin at three-minute intervals. Under Tunner's leadership, the Berlin Airlift set new records for mass airlift and flying safety. During the Korean War, Tunner headed the Combat Cargo Command, Far East Air Forces, providing airlift for the initial Inchon invasion, subsequent paratroop operations, and the advance of the 8th Army to the Yalu River. After Korea, Tunner became Deputy Commander of the Air Materiel Command at Wright-Patterson Air Force Base, Ohio, and in 1953, he returned to Wiesbaden as Commander in Chief of the United States Air Forces in Europe, a post he held for four years during the buildup of the North Atlantic Treaty Organization Air Forces. Tunner was reassigned to Headquarters United States Air Force as

Deputy Chief of Staff for Operations in 1957. On 1 July 1958, he returned to strategic airlift as Commander of the Military Air Transport Service, headquartered at Scott Air Force Base, Illinois, where he directed the command's participation in such actions as the Lebanon and the Taiwan Crises and the BIG SLAM/PUERTO PINE exercise.

GENERAL JOE W. KELLY Military Air Transport Service, 1 June 1960-18 July 1964

A native of Waverly, Indiana, Joe W. Kelly was born 19 January 1910. He graduated from the United States Military Academy in 1932. After completing flying school in 1933, Kelly worked several months as an airmail pilot and then as a flying instructor until 1940 when he went to Chile as a member of the United States Military Mission. Transferred to Europe in January 1944, he commanded the 386th Bornbardment Group, Under Kelly's leadership, this group compiled the most outstanding record of any B-26 group in the European theater for the number of successful sorties flown, tonnage of bombs dropped, and energy aircraft destroyed. In December 1944, Kelly was appointed to the United States Military Academy, where he became Director of Aviation. During the summer of 1946, he enrolled in the Air War College at Maxwell Air Force Base, Alabama, and upon graduation, served as an instructor and the Chief of the Plans and Operations Division. He began a five and one-half year association with the Strategic Air Command in 1948 to include commanding the Far East Air Forces Bomber Command, Yokota Air Base, Japan. In 1953, he served as the Director of the Air Force Legislative Liaison, Washington, DC. He became Commander of the Air Proving Ground Center, Eglin Air Force Base, Florida, in July 1958 and assumed leadership of MATS as a lieutenant general in June 1960. During his tenure, Kelly guided the command through the massive mercy airlift to Chile in 1960, the long-term Congo Airlift of troops and supplies for the United Nations, problems associated with the building of the Berlin Wall, and the complex airlift requirements of the Cuban missile crisis of 1962. Kelly



directed MATS into the "Jet Age" when he personally piloted the first jet aircraft assigned to the command, a C-135 *Stratolifter*, from the Boeing factory in Renton, Washington, to MATS' Eastern Transport Air Force at McGuire Air Force Base, New Jersey. MATS also acquired the C-130E *Hercules* during his tenure. Promoted to the rank of full general on 6 June 1963, Kelly became the first four-star general of the Military Air Transport Service.

GENERAL HOWELL M. ESTES, JR. Military Air Transport Service, 19 July 1964-31 December 1965 Military Alrlift Command, 1 January 1966-31 July 1969



Howell M. Estes, Jr., born 18 September 1914 in Fort Oglethorpe, Georgia, graduated from the United States Military Academy in 1936. Initially appointed as platoon and troop commanding officer of the 7th Cavalry, he later served as Aide to the Commanding General at Headquarters, 1st Cavalry Division. During World War II, his assignments included flight instructor and Commandant of Cadets at Brooks Field, Texas; Commander of Blackland Army Air Base, Waco, Texas; and Commander of Lubbock Army Air Field, Lubbock, Texas. In 1946, he became Chief of the Plans and Policy Branch, Operations Division, United States Air Forces in Europe, at Wiesbaden, Germany, and held a number of other staff positions with the command, including Assistant Chief of Staff for Plans. Upon returning to the United States in 1949, Estes completed courses at the Air War College, Maxwell Air Force Base, Alabama, and was assigned to March Air Force Base, California, where he assumed command of the 1st Air Base Group. He then became Commander of the 22d Bombardment Wing and in January 1951, Commander of the 44th Bombardment Wing at March Air Force Base. From March through July 1951, during the Korean War, he was assigned as Vice Commander of Far East Air Forces Bomber Command and flew 25 combat missions in B-29 Superfortresses. Estes was selected to command the 320th Bombardment Wing at March in August 1951, with the additional duty of designated Commander, Air Task Group 7.4, Joint Task Force Seven, which supervised the overseas atomic test, Operation CASTLE. During the operational phase, he spent four months at the Pacific Proving Grounds

on Eniwetok Island. Beginning July 1954, he served at the Wright Air Development Center of the Air Research and Development Command at Wright-Patterson Air Force Base, Ohio, and became Assistant Deputy Commander for Weapons Systems. Transferred to Headquarters, United States Air Force, Washington, DC, as Assistant Chief of Staff, Air Defense Systems, Estes was reassigned as Assistant Deputy Chief of Staff for Operations in June 1958. In April 1961, he was selected as Deputy Commander for Aerospace Systems, Air Force Systems Command, and the next year was named Vice Commander of AFSC at Andrews Air Force Base, Maryland. In July 1964, Estes assumed command of the Military Air Transport Service, where he directed airlift support for: the Dominican Crisis in 1965, numerous operations in Vietnam, the Apollo moon missions, and the return of the USS Pueblo crew in 1969. Under Estes, the command also acquired the first C-141 Starlifters and C-9A Nightingales.

GENERAL JACK J. CATTON Military Airlift Command, 1 August 1969-11 September 1972

Born 5 February 1920, Jack J. Catton attended Santa Monica Junior College and Loyola University, Los Angeles, California. He entered the Army Air Corps in 1940 as an aviation cadet and received his commission as a second lieutenant. in February 1941. During the early years of World War II, he served as an instructor pilot at Barksdale Field, Louisiana, and Hendricks Field, FlorIda, and as a squadron commander at Lockbourne Field, Ohio. Catton flew the first B-29 Superfortness across the Pacific to the Mariana Islands in 1944 and served with the XXI Bomber Command, flying missions against Japan. While assigned to the 65th Bombardment Squadron in 1946 and 1947, he participated in the first two atomic weapons tests, Operation CROSSROADS and Project SANDSTONE. Beginning in June 1948, Catton served as commander of three of the Strategic Air Command's air divisions and in the fall of 1948 became Chief of Requirements Branch in Plans at SAC headquarters, recently moved to Offutt Air Force Base, Nebraska. In 1950, after a successful bout with polio, Catton moved to March Alr Force Base, California, to serve as Director of Operations for the 22d Bombardment Wing and later filled the same position for the 12th Air Division. He flew missions with the Far East Air Forces against North Korea. In July 1959, Catton assumed command of the 817th Air Division, Pease Air Force Base, New Hampshire, as the youngest brigadier general in the Air Force. He was assigned to Headquarters of the United States Air Force from February 1964 to July 1966, first as Director of Operational Requirement and then as Deputy Chief of Staff for Programs and Requirements. He served



next as Commander of SAC's Fifteenth Air Force, March Air Force Base. Catton became Commander of the Military Airlift Command 1 August 1969. Primary among his accomplishments at MAC were the introduction of the C-5 Galaxy and airlift operations to Southeast Asia.

LIEUTENANT GENERAL GEORGE B. SIMLER

A native of Johnstown, Pennsylvania, George Simler was born 16 February 1921. He graduated from the University of Maryland and was commissioned in August 1942. Simler served two combat tours in the European theater during World War II. Shot down in July 1944, he evaded capture and successfully made his way back to the Allied lines in September 1944. Simler returned to the University of Maryland in 1946 as the first professor of Air Science and Tactics. Following assignments as Commander of the 86th Fighter-Bomber Group and the 355th Fighter Group, he was assigned to the University of Athletics. Simler graduated from the National War College in 1961 and became Commander of the 18th Tactical Fighter Wing, Kadena, Okinawa, which was the first Pacific Air Forces organization to convert to the F-105 *Thunderchief*. After serving as Commander of the Tactical Fighter Weapons Center, Nellis Air Force Base, Nevada, Simler went to Southeast Asia, where he was Director of Operations for the Seventh Air Force. Thereafter, Simler was assigned in August 1967 to Headquarters United States Air Force as Director of Operations. In July 1969, he became Vice Commander in Chief of the United States Air Forces in Europe, prior to taking command of the Air Training Command. Simler was to be promoted to the rank of general on 12 September 1972 the day he would take command of the Military Airlift Command; however, he was killed in the crash of a T-38 *Talon* at Randolph Air Force Base, Texas, on 9 September, while en route to Scott Air Force Base.

LIEUTENANT GENERAL JAY T. ROBBINS Interim commander, Military Airlift Command, 12-25 September 1972

Jay T. Robbins, a native of Coolidge, Texas, was born 16 September 1919. He graduated From Texas A&M University in 1940 and entered the Army Air Corps in July 1941. In September 1942, during World War II, Robbins was assigned to the 80th Fighter Squadron, 8th Fighter Group of the Fifth Air Force in the Southwest Pacific area. He became Commander of the squadron and Deputy Commander of the group. Robbins flew combat missions in P-38 and P-39 aircraft, and his 22 aerial victories against Japanese fighters was the fourth highest number of enemy aircraft destroyed by an Army Air Corps pilot in the Pacific theater. Robbins was assigned as Commander of the 434th Army Air Forces Base Unit at Santa Rosa Field, California, from February to November 1945. He later held several key staff positions in plans and operations at Headquarters Tactical Air Command, Langley Air Force Base, Virginia, and other operational positions at Headquarters Twelfth Air Force, Brooks Air Force Base, Texas. Robbins went on to become a member of the Joint Strategic Plans Group, Joint Chiefs of Staff; Commander of the 313th Air Division; and Chief of Staff, Pacific Air Forces. He was named Vice Commander of the Tactical Air Command, Langley Air Force Base, Virginia, where he remained until August 1972, when he became Vice Commander of the Military Airlift Command. After Simler's fatal aircraft accident, Robbins served as the interim Commander of MAC, returning to the position of Vice Commander upon General Cariton's selection.

GENERAL PAUL K. CARLTON Military Airlift Command, 26 September 1972-31 March 1977



Paul K. Carlton, born 14 April 1921 in Manchester, New Hampshire, attended the University of Pittsburgh, Ohio University, and The George Washington University. He received his pilot wings and commission from the Army Air Corps aviation cadet program in April 1942. An instructor for the B-17 Flying Fortress with the Air Training Command until 1944, he then flew 350 combat hours aboard B-29 Superfortresses with the first group operating against the Japanese mainland from India and China. Following World War II, from January 1946 to September 1949, he served with the Strategic Air Command's first atomic bomb organization, the 509th Bombardment Wing at Roswell Air Force Base, New Mexico. Thereafter, Carlton was assigned as aide-de-camp to General Curtis E. LeMay, the Strategic Air Command Commander in Chief, and then held several key positions at SAC's headquarters, numbered air forces, and wings. These included: Commander of the 1st Strategic Aerospace Division at Vandenberg Air Force Base, California, in August 1968 and Commander of the Fifteenth Air Force at March Air Force Base, California, where he served until September 1972 when he assumed command of the Military Airlift Command. On 1 February 1977, when MAC was designated a specified command, General Carlton's title changed to Commander in Chief of MAC. Under his leadership, Military Airlift Command personnel participated in the Southeast Asia prisoner of war release, Operation HOMECOMING; the airlift to Israel, Operation NICKEL GRASS; the consolidation of strategic and tactical assets; and many humanitarian operations, including the airlift of Vietnamese

and Cambodian orphans to their new homes in the United States and the massive air evacuation of Vietnamese refugees.

GENERAL WILLIAM G. MOORE, JR. Military Airlift Command, 1 April 1977-30 June 1979

A native of Waco, Texas, William G. Moore, Jr., was born on 18 May 1920. He began his military career in 1940 by enlisting in the Army Air Corps as an aviation cadet and received a commission as a second lieutenant in May 1941. During World War II, Moore commanded the 777th Bornbardment Squadron under the Fifteenth Air Force in Italy, logging 35 combat missions in B-24 Liberators. In the Korean War, he commanded the 3d Bombardment Group based at Kunsan, leading 65 combat missions in B-26 medium bombers. From January 1953 to August 1956, Moore served at Headquarters United States Air Force in the Directorate of Operations, and from August 1957 to 1961, he was assigned to Headquarters United States Air Forces in Europe as the Assistant Deputy Chief of Staff for Operations. He entered the National War College in August 1961. A year later, in August 1962, Moore began his airlift career commanding the 314th Troop Carrier Wing, Sewart Air Force Base, Tennessee, and then in September 1963, he became Commander of the 839th Air Division, also at Sewart. While there, Moore directed Project CLOSE LOOK, the springboard for today's tactical airlift tactics and procedures, and served as airlift commander for several large-scale exercises, including the BIG LIFT deployment to Europe. From March 1965 until October 1966, Moore was the Deputy Director of Operations, United States Strike Command. In November 1966, he became Commander of the 834th Air Division at Tan Son Nhut Air Base in Vietnam. Thereafter, in December 1967, Moore returned to Headquarters United States Air Force. He became Commander of MAC's



Twenty-Second Air Force in February 1970 and assumed command of the Thirteenth Air Force in September 1972. He was assigned as Chief of Staff of the Pacific Command in October 1973 and subsequently served as Assistant Vice Chief of Staff of the United States Air Force with the additional duty of Senior Air Force Member, Military Staff Committee, United Nations, from October 1976 until April 1977 when he took command of the Military Airlift Command. While at MAC, Moore directed airlift operations that supported relief to the snowbound northeast United States; major force deployments to Europe and Asia, as part of joint service exercises; withdrawal of Americans from Ethiopia; airlift of United Nations' peacekeeping forces to the Middle East; and the American airlift to Zaire.

GENERAL ROBERT E. HUYSER Military Airlift Command, 1 July 1979-25 June 1981



Born on 14 June 1924 in Paonia, Colorado, Robert E. Huyser enlisted in the Army Air Corps in April 1943 and graduated from flying school in September 1944. During World War II, he flew B-29 bombers in the Southwest Pacific area. During the Korean War, he was transferred to the Far East Air Forces Bomber Command as Chief of Combat Operations and flew combat missions in B-29 Superfortresses with the 98th Bombardment Wing. Returning to the United States in September 1953, Huyser became Chief of the Combat Crew Section, Fifteenth Air Force. In February 1957, he was designated Chief of the Training Division for the 92d Bombardment Wing and later was named the wing's Director of Operations. Assigned to Headquarters Fifteenth Air Force in January 1959, he served as Chief of the Operations Plans Division and thereafter as Chief of the Concepts Branch In the Operations Plans Division at Headquarters Strategic Air Command. In July 1966, Huyser became Vice Commander of the 454th Bornbardment Wing and later that same year assumed command of the 449th Bombardment Wing. When he returned to Headquarters SAC in April 1968, he was assigned to the office of the Deputy Chief of Staff for Operations as the Director of Command Control. In February 1970, Huyser was appointed Director of Operations Plans and Chief of the Single Integrated Operational Plan Division for the Joint Chiefs of Staff. In June 1972, he was transferred to Headquarters United States Air Force, working as the Director of Plans. In April 1973, Huyser became the Assistant Deputy Chief of Staff for Plans and Operations, assuming duties as the Deputy Chief of Staff for Plans

and Operations in November 1973. Prior to taking command of MAC, he served as Deputy Commander in Chief of the United States European Command. Under Huyser's direction, MAC supported the Rapid Deployment Joint Task Force and aided important humanitarian efforts, to include relief for earthquake victims in Portugal, Italy, and Algeria. The dramatic return of the hostages from Iran occurred during his watch.

GENERAL JAMES R. ALLEN Military Airlift Command, 26 June 1981-29 June 1983

A native of Louisville, Kentucky, James R. Allen was born 17 November 1925. He graduated from the United States Military Academy in 1948; from the Army Command and General Staff College, Fort Leavenworth, Kansas, in 1960; and the Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, DC, in 1965. He also received a master of science degree in business administration from The George Washington University. After earning his pilot wings in 1949, Allen flew fighter aircraft in the Philippines, and during the first two months of the Korean War, he participated in combat missions as a member of a volunteer squadron in the South Korean Air Force. He later served as an aide to the commander of the Fifth Air Force. Allen's first assignment in Europe extended from December 1956 to July 1959 at Ramstein Air Base, Germany. During this time, he had duties as flight commander, operations officer, and later, as Executive Officar to the Director of Plans at Headquarters United States Air Forces in Europe. In 1966, he was assigned to Cam Ranh Bay Air Base, Republic of Vietnam, where he flew RF-4C Phantom IIs and became Deputy Commander for Operations of the 12th Tactical Fighter Wing. Allen held positions at virtually every level of the Air Force including: Chief of Staff, Strategic Air Command, September 1973; Special Assistant to the Chief of Staff, Headquarters United States Air Force, January 1974; SuperIntendent of the United States Air Force Academy, August 1974; Chief of Staff, Supreme Headquarters Allied Powers Europe in Belgium, July 1977; and Deputy Commander in Chief, United States European Command, July 1979. Allen



directed MAC's support of such diverse operations as the evacuation of foreign citizens during a coup attempt in Gambia, famine relief in Chad, and BRIGHT STAR 82, the longest nonstop parachute assault mission ever executed. MAC also established the Twenty-Third Air Force during Allen's tenure, assuming responsibilities for all Air Force special operations forces.

GENERAL THOMAS M. RYAN, JR. Military Alriift Command, 30 June 1983-19 September 1985



Born 10 December 1928 in Detroit, Michigan, Thomas M. Ryan, Jr., received a bachelor of science degree in military science from the University of Omaha in 1965 and completed a master's degree in international affairs from The George Washington University, Washington, DC, in 1968. He began his military career as an aviation cadet in September 1949 and received his commission as a second lieutenant from Reese Air Force Base, Texas, in October 1950. Ryan had flying assignments with the Strategic Air Command until July 1953 when he entered the observer training school at Ellington and James Connally Air Force Bases, Texas. From May 1954 to June 1962, he served as a B-47 Stratojet pilot, crew aircraft commander, instructor pilot, and squadron operations officer. Ryan transferred to SAC headquarters in June 1962 as a staff officer in the Weapons Maintenance Division and later joined the SR-71 equipped 4200th Strategic Reconnaissance Wing in February 1965, where he served as Chief of the Quality Control Division and later as Chief of the Maintenance Control Division. Upon graduation from the Air War College in July 1968, he attended RF-4C combat crew training and then joined the 432d Tactical Reconnaissance Wing at Udorn Royal Thai Air Force Base, Thailand, as a maintenance control officer and later as Chief of Maintenance. During this assignment, he flew 114 combat missions in the RF-4C Phantom II. Ryan returned to the United States in April 1970 to serve on the staff of the Inspector General at Headquarters United States Air Force, and afterwards as Vice Commander and then Commander of the 379th Bombardment Wing. He

completed a temporary tour of duty between 1972 and 1973 as Commander of the 303d Consolidated Aircraft Maintenance Wing and also participated in the LINEBACKER II campaign against North Vietnam. Ryan again held assignments at Headquarters SAC and United States Air Force until October 1977 when he became Vice Commander in Chief of the Military Airlift Command. In July 1981, he assumed command of the Air Training Command, where he remained until named Commander in Chief of MAC in June 1983. Under Ryan's leadership, MAC personnel participated in exercises such as AHUAS TARA in Honduras and AUTUMN FORGE in Europe and provided airlift support for the Marines in Lebanon and Operation URGENT FURY in Grenada.

GENERAL DUANE H. CASSIDY Military Airlift Command, 20 September 1985-21 September 1989

Duane H. Cassidy was born 24 November 1933 in Coraopolis, Pennsylvania. He received a bachelor of science degree from the University of Nebraska in 1968 and a master's degree from Troy State University in 1975. Later Cassidy attended the J.L. Kellogg Graduate School of Management at Northwestern University and Harvard University's program in national and international security affairs. Commissioned as a second lieutenant upon completion of aviation cadet training in 1954, he attended navigator training at Harlingen and James Connally Air Force Bases, Texas. Initially assigned to the Military Air Transport Service, Cassidy flew B-25 Mitchells with the Air Weather Service's 6th Weather Group, and then transferred to the Air Rescue Service's 49th Air Rescue Squadron. During these assignments, he participated in numerous rescue and weather reconnaissance missions, including the hydrogen weapons test in 1956 at Eniwetok Atol! in the Marshall Islands. In December 1958, Cassidy left his duties as navigator to enter pilot training. Thereafter, he flew B-47 Stratojets with the Strategic Air Command. From November 1965 until September 1968, CassIdy was the aide to the commander and later the air operations officer at the 810th Strategic Aerospace Division before transferring to the Seventh Air Force's Tactical Air Control Center in the Republic of Vietnam. After returning to the United States in October 1969, Cassidy's assignments included: Commander of the 8th Military Airlift Squadron, McChord Air Force Base, Washington; Vice Commander and Commander of the 63d Military Airlift Wing at Norton Air Force Base, California; Deputy Chief of Staff for Operations



at Headquarters MAC; and Commander of the Military Airlift Command's Twenty-First Air Force at McGuire Air Force Base, New Jersey. After serving as Deputy Chief of Staff for Manpower and Personnel at Headquarters United States Air Force, Cassidy assumed command of the Military Airlift Command in September 1985 and of the United States Transportation Command upon its activation on 1 October 1987. He directed MAC's support of military operations in Lebanon, Grenada, the Persian Guif, and Panama; the INF treaty implementation; and humanitarian relief efforts such as the critical earthquake missions to Mexico City, San Salvador, and Armenia.

GENERAL HANSFORD T. JOHNSON Military Airlift Command, 22 September 1989-



Born 3 January 1936 in Aiken, South Carolina, Hansford T. Johnson attended Clemson College, graduated from the United States Air Force Academy in 1959 as the outstanding senior in thermodynamics and aerodynamics, and received a mester's degree in aeronautics from Stanford University in 1967 and a master's in business from the University of Colorado In 1970. Johnson earned his navigator wings while a cadet at the academy and his pilot wings at Laredo Air Force Base, Texas, in July 1960. During his first operational assignment, he flew C-130 Hercules transports throughout Europe, Africa, the Middle East, and West Asia with the 317th Troop Carrier Wing, Evreux Air Base, France, and continued flying with the 317th when the wing transferred to Lockbourne Air Force Base, Ohio. After completing graduate school at Stanford in 1967, Johnson volunteered for duty in Vietnam, where he served as a forward air controller in support of the Republic of Vietnam Army and United States Marine Corps forces in the northern provinces and the demilitarized zone. He also directed tactical close air support strike missions against enemy supply, storage, vehicle, and troop targets as well as flew night missions along the Ho Chi Minh trail. From May 1968 to July 1971, Johnson was an instructor and Assistant Professor of Aeronautics at the Air Force Academy. He then served in the Plans Directorate at Headquarters United States Air Force, Washington, DC, developing and evaluating military strategy. After graduating from the National War College in June 1976, his assignments led him to the 93d Bombardment Wing, Castle Air Force Base, California, as Vice Commander; to the 22d

Bombardment Wing at March Air Force Base, California, as Commander; and in February 1981 to Strategic Air Command Headquarters, Offutt Air Force Base, Nebraska, as Assistant Deputy Chief of Staff for Plans. Johnson served in other positions related to programs and evaluation until December 1986, when he became Vice Commander in Chief of the Pacific Air Forces, Hickam Air Force Base, Hawali. In August 1987, he was assigned as Deputy Commander in Chief of the United States Central Command, MacDill Air Force Base, Florida, during American operations in the Persian Gulf and was appointed Director of the Joint Staff, Joint Chiefs of Staff, in November 1988. He assumed command of MAC on 22 September 1989. Under Johnson's leadership, MAC made a significant contribution to Operations JUST CAUSE in Panama and DESERT SHIELD in the Middle East.

APPENDIX II

HEADQUARTERS STAFFS, 1941-1991

VICE COMMANDER IN CHIEF

This position was not established until 1943. During the Air Transport Command period it was identified as Deputy Commander.

Brig Gen Cyrus R. Smith	30 Jul 43	31 May 45
Brig Gen Gordon P. Saville	1 Jun 45	14 Apr 47
Brig Gen Harold Q. Hughlin	15 Apr 47	. 31 May 48
Rear Admiral John P. Whitney	1 Jun 48	13 Feb 51
Rear Admiral Hugh H. Goodwin	14 Feb 51	17 Aug 53
Rear Admiral Thomas B. Williamson	18 Aug 53	23 Aug 55
Maj Gen Ernest M. Moore	24 Aug 55	14 Jul 57
Maj Gen Frederic E. Glantzberg	15 Jul 57	12 Jul 59
Maj Gen Raymond J. Reeves	13 Jul 59	14 Jul 63
Maj Gen Glen R. Birchard	15 Jul 63	31 Jul 66
Maj Gen Robert A. Breitweiser	1 Aug 66	17 Feb 67
Maj Gen George S. Boylan, Jr.	18 Feb 67	31 Jul 67
Lt Gen James W. Wilson	1 Aug 67	31 Jan 70
Lt Gen James C. Sherrill	1 Feb 70	31 Jul 72
Lt Gen Jay T. Robbins	1 Aug 72	31 Aug 74
Lt Gen Daniel James, Jr.	1 Sep 74	31 Aug 75
Lt Gen John F. Gonge	1 Sep 75	30 Sep 77
Lt Gen Thomas M. Ryan, Jr.	1 Oct 77	31 Jul 81
Lt Gen Robert F. Coverdale	1 Aug 81	31 Aug 85
Lt Gen Spence M. Armstrong	1 Sep 85	7 Jul 87
Lt Gen Robert D. Springer	8 Jul 87	31 Aug 88
Lt Gen Anthony J. Burshnick	1 Sep 88	

CHIEF OF STAFF

6 Jul 42	30 Jul 43
1 Aug 43	31 Jul 44
1 Aug 44	30 Sep 45
1 Oct 45	31 Oct 45
1 Nov 45	14 Nov 45
15 Nov 45	31 Dec 45
1 Jan 46	14 Aug 46
15 Aug 46	14 Nov 46
15 Nov 46	14 Jan 47
15 Jan 47	14 Feb 47
15 Feb 47	14 Apr 47
15 Apr 47	30 Jun 47
1 Jul 47	31 May 48
1 Jun 48	18 Aug 49
19 Aug 49	Jun 62
Jun 52	Aug 52
Aug 52	16 Jul 54
17 Jul 54	May 57
May 57	12 Jul 69
13 Jul 59	Oct 60
Oct 60	9 Jul 61
10 Jul 61	30 Sep 61
1 Oct 61	14 Jul 63
15 Jul 63	18 Jul 65
19 Jul 65	17 Jul 66
18 Jul 66	12 Jul 68
	6 Jul 42 1 Aug 43 1 Aug 44 1 Oct 45 1 Nov 45 15 Nov 45 15 Nov 46 15 Aug 46 15 Jan 47 15 Feb 47 15 Feb 47 1 Jul 47 1 Jul 47 1 Jul 47 1 Jun 48 19 Aug 49 Jun 52 Aug 52 17 Jul 54 May 57 13 Jul 59 Oct 60 10 Jul 61 1 Oct 61 15 Jul 63 19 Jul 65 18 Jul 66

Col Donald A. Gaylord	13 Jul 68	28 Feb 70
Maj Gen William V. McBride	1 Mar 70	31 Aug 71
Position Vacant	1 Sep 71	15 Sep 71
Maj Gen Gilbert L. Curtis	16 Sep 71	5 Jul 72
Maj Gen Ray M. Cole	6 Jul 72	28 Feb 73
Position Vacant	1 Mar 73	15 Mar 73
Brig Gen (Maj Gen) Lester T. Kearney, Jr.	16 Mar 73	6 Oct 73
Maj Gen William A. Dietrich	7 Oct 73	27 Aug 75
Brig Gen (Maj Gen) Harry A. Morris	28 Aug 75	30 Jun 77
Maj Gen John W. Collens III	1 Jui 77	31 Oct 78
Brig Gen (Maj Gen) Emil N. Block, Jr.	1 Nov 78	25 Nov 79
Maj Gen Robert F. Coverdale (Acting)	26 Nov 79	21 May 80
Brig Gen James L. Gardner, Jr. (Acting)	22 May 80	28 Jul 80
Brig Gen (Mej Gen) James L. Gardner, Jr.	29 Jul 80	20 Nov 83
Brig Gen Jack W. Sheppard	21 Nov 83	24 Jul 85
Brig Gen Paul A. Harvey	25 Jul 85	31 Oct 86
Maj Gen William E. Overacker	1 Nov 86	25 Jan 90
Maj Gen William H. Sistrunk	26 Jan 90	

SENIOR ENLISTED ADVISOR

This position was called Chief Master Sergeant of MAC and Senior Airman Advisor before receiving its current designation.

CMSgt Conrad F. Stevens	10 Apr 67	24 Feb 70
CMSgt Robert M. Colpitt	25 Feb 70	31 May 72
CMSgt Robert G. White	1 Jun 72	25 Sep 73
Vacant	26 Sep 73	22 Jun 75
CMSgt Joe W. Ward	23 Jun 75	30 Jun 76
CMSgt Otto H. Lensch III	1 Jul 76	1 Aug 77
CMSgt Edward A. Henges	2 Aug 77	9 Jul 80
CMSgt James R. Vitalie	10 Jul 80	31 Dec 80
CMSgt Harry E. Davis	14 Jan 81	14 Jun 84
CMSgt Carl A. Roberts	15 Jun 84	8 Sep 85
CMSgt Charles K. Ray	9 Sep 85	31 Oct 89
CMSgt Richard A. Young	1 Nov 89	

OPERATIONS

This function was known by various titles: Operations Officer, Assistant Chief of Staff, Operations, and Deputy Chief of Staff, Operations. On 5 July 1948 a position, Deputy Commander, Air Transport, was created but left unmanned when Maj Gen William H. Tunner was selected to head the Airlift Task Force for the Berlin Airlift. On 1 February 1949 the office of Deputy Commander, Operations, was created and assumed most of the functions of the office of Deputy Commander, Air Transport. Deputy Commander, Operations, was created and assumed most of the functions of the office of Deputy Commander, Air Transport. Deputy Commander, Operations, was abolished in 1951, but Director of Operations was continued until 1 April 1953 when it became Deputy Chief of Staff, Operations. Merged into Operations and Transportation on 1 January 1991.

Maj Thomas L. Mosley	29 May 41	5 Jul 42
Col Lawrence G. Fritz	6 Jul 42	Sep 43
Col Harold R. Harris	Sep 43	16 Aug 44
Col George E. Gardner	17 Aug 44	10 Jan 45
Col Henry C. Kristofferson	11 Jan 45	8 Oct 45
Brig Gen Milton W. Arnold	9 Oct 45	Jan 46
Col Joseph D. Lee	Jan 46	Mar 46
Col Karl Truesdell	Mar 46	Aug 47
Col Jesse Auton	Aug 47	4 Jul 48
Maj Gen William H. Tunner	5 Jul 48	27 Jul 48
Capt (USN) Calvin E. Wakeman (Acting)	28 Jul 48	Nov 48
Capt (USN) Joseph I. Taylor (Acting)	Nov 48	9 Oct 49
Maj Gen William H. Tunner	10 Oct 49	18 Feb 51
Capt (USN) Joseph I. Taylor	19 Feb 51	14 Apr 51
Col Theodore R. Milton	15 Apr 51	31 Jul 52
Col Francis C. Gideon	1 Aug 52	27 Jun 54

Brig Gen (Maj Gen) Albert T. Wilson, Jr.	28 Jun 54	15 Apr 58
Maj Gen Glen R. Birchard	16 Apr 58	31 Oct 61
Maj Gen George B. Dany	1 Nov 61	30 Jun 63
Maj Gen Joseph A. Cunningham	1 Jul 63	18 Jul 66
Brig Gen (Maj Gen) Courtney L. Faught	19 Jul 66	31 Aug 69
Maj Gen William V. McBride	1 Sep 69	28 Feb 70
Brig Gen James A, Hill	1 Mar 70	28 Feb 71
Brig Gen (Maj Gen) Clare T. Ireland	1 Mar 71	21 Jul 72
Brig Gen (Maj Gen) Alden G. Glauch	22 Jul 72	18 May 75
Brig Gen Harry A. Morris	19 May 75	31 Aug 75
Brig Gen Charles C. Irions	1 Sep 75	13 Jul 77
Brig Gen (Maj Gen) Edward J. Nash	20 Jul 77	18 Mar 79
Brig Gen (Maj Gen) James I. Baginski	19 Mar 79	31 Jul 81
Brig Gen (Maj Gen) Duane H. Cassidy	1 Aug 81	11 Sep 83
Maj Gen Donald D. Brown	12 Sep 83	16 Oct 84
Maj Gen William E. Overacker	17 Oct 84	31 Oct 86
Maj Gen Donald A. Logeais	1 Nov 86	28 Jun 87
Maj Gen James D. Kellim	29 Jun 87	1 Apr 90
Maj Gen (Sel) James J. LeCleir	30 Mar 90	23 Aug 90
Maj Gen Vernon J. Kondra	23 Aug 90	31 Dec 90

AIR TRANSPORTATION

Established as Deputy Chief of Staff, Air Transportation on 15 April 1976. Merged into Operations and Transportation on 1 January 1991.

Col John Ford	15 Apr 76	17 May 76
Brig Gen Charles B. Knudson	17 May 76	4 May 79
Brig Gen (Maj Gen) (USA) Orlando E. Gonzales	5 May 79	29 Jul 79
Col (Brig Gen) John E. Griffith	30 Jul 79	9 Sep 82
Col Clarence H. Lindsey, Jr.	10 Sep 82	24 May 85
Col (USA) Reinhard M. Lotz	25 May 85	19 Jan 87
Col Earl B. Boyanton, Jr.	20 Jan 87	24 May 90
Col David W. Morley	25 May 90	31 Dec 90

OPERATIONS AND TRANSPORTATION

Established as Deputy Chief of Staff, Operations and Transportation on 1 January 1991.

Maj Gen Vernon J. Kondra

1 Jan 91

PLANS AND PROGRAMS

Initiated as the Assistant Chief of Staff Plans during the Air Transport Command era, this function then became part of Plans and Operations under the Military Air Transport Service. On 1 April 1953, Deputy Chief of Staff, Plans became a separate function again. Redesignated Deputy Chief of Staff, Programs and Resources, effective 1 May 1989; redesignated Deputy Chief of Staff, Plans and Programs, 20 September 1989.

Mr (Col) Harold Harris	6 Jul 42	20 Feb 43
Lt Col (Col) Grant Mason, Jr.	15 Mar 43	25 Sep 44
Lt Col Samuel E. Gates	26 Sep 44	3 Oct 45
Col Jack W. Hickman	4 Oct 45	Aug 47
Lt Col Earl B. Young	Aug 47	1 Jun 48
Col Jesse Auton	1 Jun 48	6 Aug 48
Capt (USN) Robert W. Morse	7 Aug 48	30 Jun 52
Capt (USN) Robert G. Armstrong	1 Jul 52	6 Feb 55
Capt (USN) Harry P. Badger	7 Feb 55	31 Oct 55
Col Edward G. York	1 Nov 55	20 Jul 58
Col (Brig Gen) Richard F. Bromiley	21 Jul 58	Aug 60
Brig Gen (Maj Gen) Jack G. Merrell	Aug 60	4 Jan 62

Col Sterling P. Bettinger	5 Jan 62	11 Jul 82
Maj Gen Reginald J. Clizbe	12 Jul 62	30 Jun 64
Maj Gen James C. Sherrill	1 Jul 64	22 Jul 65
Mr John F. Shea (Acting)	23 Jul 65	30 Sep 65
Brig Gen (Ma) Gen) George S. Boylan, Jr.	1 Oct 65	2 Jul 68
Brig Gen (Ma) Gen) Gilbert L. Curtis	3 Jul 68	Aug 69
Brig Gen Donald A. Gaylord	Aug 69	Dec 69
Maj Gen Ralph G. Taylor	Dec 69	28 Feb 71
Brig Gen (Maj Gen) Ray M. Cole	1 Mar 71	20 Jul 72
Maj Gen Clare T. Ireland, Jr.	21 Jul 72	30 May 73
Brig Gen (Maj Gen) William A. Dietrich	31 May 73	6 Oct 73
Vacant	7 Oct 73	14 Feb 74
Brìg Gen (Maj Gen) Thomas A. Aldrich	15 Feb 74	5 Aug 75
Brig Gen (Maj Gen) John W. Collens III	6 Aug 75	10 Jul 77
Brig Gen (Maj Gen) Robert F. Coverdale	11 Aug 77	23 May 80
Brig Gen (Maj Gen) Donald D. Brown	2 Jun 80	11 Sep 83
Brig Gen (Maj Gen) Claudius E. Watts III	12 Sep 83	26 Jul 84
Brig Gen Anthony J. Burshnick	27 Jul 84	22 Oct 86
Maj Gen Richard J. Trzaskoma	17 Nov 86	31 Jul 89
Maj Gen Vernon J. Kondra	1 Aug 89	23 Aug 90
Maj Gen James C. McCombs	27 Aug 90	0

CINCMAC ANALYSIS GROUP

Established 15 July 1987. Effective 20 November 1989, this special staff agency was incorporated without any change in personnel into the Plans and Programs deputate as the Command Analysis Group, a directorate.

Col Robert C. Roehrkasse

COMMAND AND CONTROL INTEGRATION MANAGEMENT

Created on 1 August 1987. Merged into Requirements on 20 September 1989.

Lt Col Richard G. Poff

REQUIREMENTS

Established as Deputy Chief of Staff, Requirements on 20 September 1989.

Maj Gen Frank E. Willis

LOGISTICS

This position has been known by various titles: Assistant Chief of Staff Materiel and Supply, Assistant Chief of Staff Supply and Services, and Director of Base Services and Supply. Effective 1 April 1953, Deputy Chief of Staff, Materiel. Renamed Deputy Chief of Staff, Logistics on 1 January 1972. Merged into Logistics and Engineering on 1 January 1991.

Lt Col Harold Hartney	29 May 42	5 Jul 42
Lt Col Frank E. Powell	6 Jul 42	16 Mar 43
Col George F. Lewis	17 Mar 43	1 May 44
Col James W. Aston	1 May 44	3 Oct 45
Col Morgan W. McCall	4 Oct 45	15 Dec 45
Lt Col Jack L. Armstrong	16 Dec 45	31 Dec 45
Col Robert E. Cron, Jr.	1 Jan 46	Aug 47
Col Theodore J. Koenig	Aug 47	Feb 49
Lt Col Ralph B. Lister	Feb 49	Мау 49
Col Ray A. Dunn	Мау 49	Jan 50
Col George F. Kinzie	Jan 50	30 Jun 52
Col Carl W. Carlmark	1 Jul 52	17 Aug БЗ

20 Sep 89

20 Nov 89

20 Sep 89

1 Aug 87

15 Jul 87

Brig Gen Don O. Darrow	18 Aug 53	8 Jul 57
Brig Gen Lester W. Light	9 Jul 57	31 Dec 59
Col Donald C. Sloan (Acting)	1 Jan 60	15 Mar 60
Brig Gen Lee W. Fulton	15 Mar 60	14 Jul 62
Brig Gen Donald W. Graham	15 Jul 62	31 May 65
Col Lester C. Messenger (Acting)	1 Jun 65	11 Oct 65
Brig Gen (Maj Gen) William H. Reddell	12 Oct 65	28 Feb 69
Maj Gen William V. McBride	1 Mar 69	14 Sep 69
Brig Gen Arthur W. Crulkshank, Jr.	15 Sep 69	28 Feb 72
Brig Gen Paul F. Patch	29 Feb 72	8 Jul 73
Brig Gen (Maj Gen) Warner E. Newby	9 Jul 73	14 Apr 75
Brig Gen Willum H. Spillers, Jr.	15 Apr 75	30 Jun 76
Brig Gen Edward J. Nash	1 Jul 76	31 Jul 77
Brig Gen William E. Carson (Acting)	1 Aug 77	[·] 9 Aug 77
Brig Gen William E. Carson	10 Aug 77	23 May 79
Brig Gen Donald W. Bennett	24 May 79	19 Jul 81
Brìg Gen Alfred G. Hansen	20 Jul 81	11 Feb 83
Col (Brig Gen) Larry D. Wríght	12 Feb 83	23 Aug 84
Brig Gen Donald A. Logeais	24 Aug 84	31 Oct 86
Brig Gen Gary H. Mears	14 Nov 86	7 Jun 89
Maj Gen John M. Nowak	15 Jun 89	31 Dec 90

ENGINEERING AND SERVICES

Established as Deputy Chief of Staff Civil Engineering (Test), 1 September 1965; redesignated Deputy Chief of Staff, Civil Engineering, 14 December 1966; redesignated Deputy Chief of Staff, Civil Engineering and Services, 21 February 1975. Merged into Logistics and Engineering on 1 January 1991.

Col Robert I. Millberry 1 S	ep 65 31 Jul 67
Col Paul W. Stephens 1 A	ug 67 Jun 70
Col Joseph M. Kristoff J	un 70 20 Sep 70
Col James O. Putnam 21 S	ap 70 25 May 72
Col (Brig Gen) William D. Gilbert 26 M	ay 72 16 Aug 73
Col (Brig Gen) Paul T. Hartung 17 A	ug 73 31 Jul 79
Brig Gen Allison G. Glover 1 A	ug 79 31 Oct 81
Col David M. Cornell 1 N	ov 81 9 Mar 84
Col John R. Harty 10 M	ar 84 31 May 86
Col John C. Sowers 1 J	un 86 30 Nov 89
Col James G. Zody 1 D	ec 89 31 Dec 90

LOGISTICS AND ENGINEERING

Established as Deputy Chief of Staff, Logistics and Engineering on 1 January 1991.

Maj Gen John M. Nowak

1 Jan 91

PERSONNEL

Established under the Air Corps Ferrying Command in 1941, the Personnel function retained that name until 1 June 1948 when it merged with the Administration function and became known as the Director of Personnel and Administration. Effective 1 April 1953, Deputy Chief of Staff, Personnel.

Maj William H. Tunner	29 May 41	5 Jul 42
Capt Richard C. Lowman	6 Jul 42	15 Feb 43
Lt Col (Col) Frederick G. Atkinson	16 Feb 43	Nov 45
Col William J. Clinch	Nov 45	Sep 46
Col Stanley McGee	Sep 46	Oct 46
Col William S. Steele	Oct 46	1 Sep 47
Col Rollen H. Anthis	2 Sep 47	Aug 48
Col Sam W. Agee	Aug 48	31 Dec 49

Coi Kenneth K. Golledge	1 Jan 50	22 Jul 53
Col Lewis W. Stocking	23 Jul 53	31 May 56
Col Claude M. Stubbs	1 Jun 56	24 Jul 56
Col Henry G. Thome	25 Jul 56	11 Aug 57
Col Claude M. Stubbs	12 Aug 57	Apr/May 60
Col Bryon V. Pepitone (Acting)	Sep 59	29 May 60
Col Robert T. Engle (Acting)	30 May 60	30 Jun 6 0
Col William H. Brandon	1 Jul 60	24 May 63
Col (Brig Gen) Sterling P. Bettinger	25 May 63	15 Oct 65
Col Edward L. Jones	16 Oct 65	18 Jul 66
Col (Brig Gen) Louis G. Griffin	19 Jul 66	30 Jun 68
Col (Brig Gen) Relph J. Hallenbeck	1 Jul 68	1 Aug 69
Col Russell D. Crane	2 Aug 69	31 Mar 70
Brìg Gen Olíver W. Lewis	1 Apr 70	2 Jun 72
Col Harry A. Morris	3 Jun 72	8 Oct 73
Col Paul A. Bergerot	7 Oct 73	31 May 75
Brig Gen Leland C. Shepard, Jr.	1 Jun 75	13 Apr 77
Position Vacant	14 Apr 77	31 May 77
Col (Brig Gen) James I. Baginski	1 Jun 77	18 Mar 79
Col (Brig Gen) William J. Mall, Jr.	19 Mar 79	21 Aug 81
Brig Gen Robert D. Springer	22 Aug 81	3 Jul 82
Brig Gen Jack W. Sheppard	4 Jul 82	20 Nov 83
Col Donald Post	1 Dec 83	31 May 88
Col Charles C. Barnhill, Jr.	1 Jun 88	31 Mar 89
Col James H. White, Jr.	3 Apr 89	30 Sep 90
Col Andrew J. Pelak, Jr.	1 Oct 90	

COMPTROLLER

From 1941 to 1943 this function was called the Fiscal Officer. The name changed to Chief Budget and Fiscal Division in 1943 and then to Air Comptroller in 1946. In mid-1947 it became known as Chief, Budget and Fiscal, and on 1 June 1948, with the establishment of the Military Air Transport Service, its name changed to Comptroller. Effective 4 June 1953, it was redesignated Deputy Chief of Staff, Comptroller.

Lt Col S. S. Hanks	29 May 41	5 Jul 42
Lt Col Paul Montague	6 Jul 42	8 Aug 42
Lt Col Benjamin M. Brinton	9 Aug 42	27 May 44
Col Russell Robb	27 May 44	Oct 45
Lt Col Edwin Reichers	Oct 45	Jan 46
Maj Lewis H. Craven	Jan 46	Mar 46
Capt James F. Wilson	Mar 46	Apr 46
Capt George T. Bland	Apr 46	31 May 48
Mr P. F. Hilbert	1 Jun 48	unknown
Mr John C. Schroeter	unknown	2 Apr 51
Col Joseph F. Delaney	3 Apr 51	20 Aug 52
Col Whiteford C. Mauldin	21 Aug 52	18 Jul 53
Col Joseph F. Delaney	19 Jul 53	Jul 60
Col Wendell E. Carter	00 Iul	18 Jan 63
Col Lloyd J. Martin	19 Jan 63	26 Jun 67
Col E. J. Lodell (Acting)	27 Jun 67	4 Aug 67
Col George T. Bland	5 Aug 67	30 Sep 70
Col Luther J. Westbrook	1 Oct 70	30 Apr 72
Col Robert C. Wagoner	1 May 72	28 Feb 73
Col Alfred R. Jeffreys	1 Mar 73	31 Mar 74
Col Kenneth J. Herhold	1 Apr 74	18 Jun 74
Col Kenneth D. Leuthold	19 Jun 74	30 Jun 78
Col Charles D. Metcalf	1 Jul 78	11 Jun 82
Col James W. Councill (Acting)	12 Jun 82	Б Jul 82
Col John L. Finan	6 Jul 82	30 Sep 85
Col Donald Scooler	1 Oct 85	24 Jun 88
Col Allen D. Bunger	25 Jun 88	

INTELLIGENCE

The function was called Intelligence and Security during the Air Transport Command era and became part of Operations under the Military Air Transport Service. It was reestablished as an independent function 1 October 1981 as an Assistant Chief of Staff. Effective 6 August 1984, renamed Deputy Chief of Staff, Intelligence.

Capt Louis S. Bimbel, Jr.	29 May 41	5 Jul 42
Lt Col John F. Turner	6 Jul 42	1 Aug 42
Lt Col John H. Snyder	1 Aug 42	27 Aug 43
Ma) (Lt Col) Frederick C. Morgan	30 Aug 43	15 Oct 45
Lt Col Robert L. Wright	16 Oct 45	Sep 46
Lt Col James F. Brady	Sep 46	30 May 48
Not an independent function		
Col Mayo H. Nielsen	1 Oct 81	31 May 82
Col Horace E. Wood, Jr.	1 Jun 82	30 Nov 82
Col James N. Bohn	1 Dec 82	23 Aug 85
Col James A. Corsi	24 Aug 85	22 Jun 90
Col Harry E. Colestock III	23 Jun 90	

COMMUNICATIONS AND AIR TRAFFIC SERVICES

Originated 1 June 1981. Merged with Systems Integration and Command Data Automation to become Information Systems on 1 December 1984.

Col Ray G. Green, Jr.	1 Jun 81	15 May 83
Col James W. Cowan	16 May 83	31 Aug 84
Col Victor S. Stachelczyk	1 Sep 84	30 Nov 84

COMMAND DATA AUTOMATION

Merged with Communications and Air Traffic Services and Systems Integration to become Information Systems on 1 December 1984.

Col Kenneth L. Vaughn	16 Aug 66	20 Aug 67
Col Eart L. Hehn, Jr.	21 Aug 67	31 Mar 72
Col James M. Leonard	1 Apr 72	31 Aug 75
Col Castor Mendez-Vigo, Jr.	1 Sep 75	24 Mar 78
Col Kurt G. Blunck	25 Mar 78	15 Jan 84
Col Gerald A. Lippold	16 Jan 84	30 Nov 84

SYSTEMS INTEGRATION

Originated 8 November 1982. Merged with Communications and Air Traffic Services and Command Data Automation to become Information Systems on 1 December 1984.

Col John S. Berry

COMMAND, CONTROL, COMMUNICATIONS, AND COMPUTER SYSTEMS

Established on 1 December 1984 as Deputy Chief of Staff, Information Systems. Redesignated Deputy Chief of Staff, Command, Control, Communications, and Computer Systems, effective 31 March 1986.

Col Victor S. Stachelczyk	1 Dec 84	11 Jun 86
Col Dennis C. Beasley	12 Jun 86	17 Mar 88
Col Jerome A. Landry	11 Mar 88	28 Feb 90
Col Stephen F. Kelley	1 Mar 90	

30 Nov 84

15 Jan 83

SECURITY POLICE

Originally called Provost Marshal, the function was renamed Security and Law Enforcement in 1961. Effective 1 October 1971, tested as a separate staff function with the name of Director of Security Police, approved for continuation on 17 December 1972. Redesignated Office of the Chief Security Police, effective 17 March 1975; renamed Deputy Chief of Staff, Security Police on 19 July 1985.

Col William H. Worley Mar	56 May 56
Lt Col Kenneth S. Berger May	56 Aug 57
Col Clifford A. Dougherty Aug	57 Feb 62
Lt Col John F. Austin Feb	62 Jun 63
Col Harry M. Ordran 10 Jun	63 Jun 64
Not an independent function	
Col Bob R. Frisby 13 Dec	71 31 Jul 75
Col Paul N. Scheidel 1 Aug	75 23 Jul 76
Col Stephen T. Frazier 24 Jul	76 27 Jun 82
Col Samuel E. Stocks 28 Jun	82 18 Jul 88
Col David M. Southworth 19 Jul	88

COMMAND SURGEON

Lt Col Fletcher E. Ammons	6 Jul 42	11 Feb 43
Lt Col Paul G. Gilliland	12 Feb 43	13 Oct 44
Col Major S. White	14 Oct 44	Sep 47
Col (Brig Gen) Wilford F. Hall	Sep 47	19 Sep 54
Col L. Render Braswell (Acting)	20 Sep 54	16 Oct 54
Brig Gen William J. Kennard	17 Oct 54	Apr 55
Col (Brig Gen) L. Render Braswell	Apr 55	3 Jan 60
Col Maurice B. Johnston (Acting)	4 Jan 60	14 Feb 60
Brig Gen Robert S. Brua	15 Feb 60	13 Aug 61
Brig Gen Kenneth E. Pletcher	14 Aug 61	28 Nov 63
Col (Brig Gen) Harold F. Funsch	29 Nov 63	31 Jul 70
Brig Gen (Ma) Gen) Maxwell W. Steel, Jr.	1 Aug 70	6 Aug 72
Brig Gen Stanley H. Bear	7 Aug 72	31 Jul 73
Col (Brig Gen) Herbert V. Swindell	1 Aug 73	26 Jul 78
Brig Gen (Maj Gen) Howard R. Unger	14 Aug 78	9 Nov 81
Brig Gen Monte B. Miller	10 Nov 81	14 Mar 85
Brig Gen Vernon Chong	1 Apr 85	11 Feb 87
Brig Gen James G. Sanders	22 Mar 87	27 Sep 88
Brig Gen Frederick W. Plugge IV	28 Sep 88	

QUALITY SUPPORT AND READINESS

Established as Inspector General. Redesignated Office of Quality Support and Readiness, effective 1 January 1991.

Col Newton N. Speece	6 Jul 42	3 Apr 44
Col Fred C. Nelson	27 Sep 43	27 Jun 44
Brig Gen Francis M. Brady	28 Jun 44	7 Jul 45
Col W. H. Cox	8 Jul 45	31 Dec 45
Col Clarence E. Crumdine	1 Jan 46	31 May 48
Col Wentworth Goss	1 Jun 48	11 Aug 49
Maj Gen Caleb V. Haynes	12 Aug 49	8 Sep 49
Col Thomas D. Ferguson	8 Dec 49	30 Nov 53
Col Warren H. Higgins	1 Dec 53	Feb 55
Col Luther B. Mathews (Acting)	Feb 55	2 Nov 55
Col Luther B. Mathews	3 Nov 55	6 Jul 57
Col William H. Worley	7 Jul 57	25 Aug 57
Col William H. Schwartz, Jr.	26 Aug 57	13 Jun 60
Col Roland J. Barnick	14 Jun 60	9 Jul 61
Col Jesse A. Irwin	10 Jul 61	30 Jun 64
Col John G. Williams	1 Jul 64	23 Feb 67

Col Burgess Gradwell	24 Feb 67	31 Oct 69
Col Robert L. Moeller	1 Nov 69	4 Aug 71
Col Hollon H. Bridges	5 Aug 71	22 Apr 72
Brig Gen John H. Germeraad	23 Apr 73	27 Aug 75
Brig Gen Edward J. Nash	28 Aug 75	1 Jul 76
Brig Gen William E. Carson	9 Jul 76	9 Aug 77
Col William J. Mall, Jr.	20 Aug 77	31 Mar 78
Brig Gen Donald W. Bennett	1 Apr 78	23 May 79
Brig Gen James L. Gardner, Jr.	5 Jun 79	27 Jul 80
Col (Brig Gen) William E. Overacker	28 Jul 80	16 Aug 81
Brig Gen Philip S. Prince	21 Aug 81	28 Feb 83
Col (Brig Gen) Paul A. Harvey	1 Mar 83	20 Aug 84
Col Dan W. Freeman (Acting)	21 Aug 84	16 Jan 85
Brig Gen William H. Sistrunk	17 Jan 85	18 Jul 86
Brig Gen James D. Kellim	1 Aug 86	28 Jun 87
Brig Gen Floyd E. Hargrove	13 Jul 87	31 Jul 89
Brig Gen James L. Cole, Jr.	1 Aug 89	30 Mar 90
Brig Gen F. Keith Tedrow	31 Mar 90	31 Aug 90
Brig Gen (Sel) Donald E. Loranger, Jr.	1 Sep 90	

STAFF JUDGE ADVOCATE

Lt Col Rowland W. Fixel	6 Jul 42	Nov 46
Lt Col James K. Kneussl	Nov 46	26 Mar 53
Col Bernard B. Smith	27 Mar 53	31 Jan 57
Col Arthur F. Hurley	1 Feb 57	14 Jan 58
Col Jean F. Rydstrom	15 Jan 58	29 Oct 58
Lt Col Irving W. Adams	30 Oct 58	1 Dec 58
Col (Brig Gen) Steward S. Maxey	2 Dec 58	31 May 62
Col Eugene B. Sisk	1 Jun 62	10 Aug 67
Col Earl A. Morgan (Acting)	11 Aug 67	27 Aug 67
Col George K. Hughel	28 Aug 67	May/Jun 70
Col Walter E. Mangerich	May/Jun 70	25 Jul 70
Col Henry S. Lewis, Jr.	26 Jul 70	10 Jun 73
Brig Gen Felix J. Zaniewski	11 Jun 73	6 Mar 74
Col (Brig Gen) Joseph R. Lowry	7 Mar 74	6 Apr 77
Col Jerry E. Conner	7 Apr 77	8 Jun 77
Col (Brig Gen) Thomas B. Burton	9 Jun 77	10 Sep 78
Col Harold W. Gardner	11 Sep 78	14 Mar 82
Col Robert A. Dunham	15 Mar 82	2 Apr 84
Col Stark O. Sanders, Jr.	4 Jun 84	17 Jun 88
Col Robert L. Bridge	18 Jun 88	27 Jun 90
Col Bryan G. Hawley	28 Jun 90	

COMMAND CHAPLAIN

Col Paul J. Giegerich	Sep 46	Nov 46
Lt Col William W. Sissel	Nov 46	50
Lt Col Paul G. Veillard	50	51
Col Peter A, Dunn	51	Aug 53
Col Martin C. Poch	Aug 53	Aug 56
Col Albert L. Cutress (Acting)	Aug 56	9 Sep 56
Col Paul J. Giegerich	10 Sep 56	Mar 58
Lt Col Ray M. Terry	Mar 58	29 Jul 58
Col John P. Fellows	30 Jul 58	08 Iul
Col Henri A. Hamel	Jul 60	31 Jul 63
Col Russell L. Blaisdell	1 Aug 63	30 Jun 64
Col Francis X. Murphy	1 Jul 64	31 Jan 68
Col Warren E. Ferguson	1 Feb 68	29 Jun 70
Col John R. Durkin	30 Jun 70	31 Jul 74
Col Kenneth R. Israel	1 Aug 74	9 Jun 79

Col John T. Naughton	10 Jun 79	28 Jun 82
Col Newton V. Cole	29 Jun 82	3 Арг 87
Col Robert J. Balint	7 Jul 87	1 Jun 90
Col Paul F. Richart	20 Jun 90	

INFORMATION MANAGEMENT

The Adjutant or Adjutant General performed the function's duties from 1943 to 1948, thereafter transferred to Personnel and Administration. In 1958 Administration became a separate staff function. Renamed Information Management on 1 April 1989.

Mr David S. Lehman	29 May 41	20 Jun 42
Lt Col James H. Douglas	21 Jun 42	. May 43
Not an independent function		_
Col Orval N. Burroughs	1 Feb 58	1 May 61
Col Walter J. Atkins	2 May 61	31 Mar 66
Lt Col Howard G. Roberts (Acting)	1 Apr 66	24 Aug 66
Col Robert W. Elliott	25 Aug 66	31 Aug 68
Col Jack N. Stovall	1 Sep 68	31 Aug 69
Col Robert R. Osborne	1 Sep 69	31 Jul 71
Col Hal R. Montague	1 Aug 71	31 Jan 73
Col Hiram Griffin	1 Feb 73	31 Jul 75
Col Harrison H. Heiberg	1 Aug 75	17 Jan 76
Col Chester J. Gaseor	18 Jan 76	31 Dec 83
Col Gary K. Spencer	1 Jan 84	19 Aug 84
Col Jon E. Boursaw	14 Sep 84	31 Oct 85
Lt Col Edward Ackermann (Acting)	1 Nov 85	22 Mar 86
Lt Col Chris L. Jefferies	23 Mar 86	18 Jul 89
Lt Col Edward Ackermann (Acting)	19 Jul 89	20 Aug 89
Col Eddie L. Anderson	21 Aug 89	-

PUBLIC AFFAIRS

The function has also been called Chief of Public Relations, Director of Information Services, and Public Information Officer.

Maj Rex William D. Smith, Jr.	6 Jul 42	Mar 45
Col Robert W. Witty	Mar 45	Dec 46
Maj Bernard Peters	Dec 46	31 May 48
Mr Leonard Hall	1 Jun 48	49
Lt Col Charles A. Brown	49	51
Col Kenneth K. Golledge	51	52
Col Charles A. Brown	52	3 Oct 52
Lt Col Bernard Peters	4 Oct 52	4 Dec 55
Lt Col David W. Allerdice	5 Dec 55	21 Jul 57
Col Earl T. Reichert	22 Jul 67	12 Jul 58
Lt Col Melvin E. Williamson (Acting)	13 Jul 58	14 Sep 58
Col Daniel M. Lewis	15 Sep 58	Aug 59
Maj Marvin M. Stenley	Aug 59	Sep 59
Lt Col (Col) Raymond L. Towne	Sep 59	31 May 64
Lt Col Edward R. Kandel	1 Jun 64	14 Jul 64
Col Joseph A. Stuart, Jr.	15 Jul 64	17 Jul 66
Lt Col Merritt G. Garner	18 Jul 66	15 May 68
Lt Col Maurice G. Steele (Acting)	16 May 68	8 Aug 68
Col Jack L. Giannini	9 Aug 68	31 Aug 71
Col Irving H. Breslauer	1 Sep 71	28 Feb 73
Position Vacant		
Col Homer A. Davis, Jr.	31 Jul 73	31 Jul 75
Lt Col Thomas W. Sturgess	1 Aug 75	3 Mar 78
Lt Col Louis A. Torraca, Jr.	4 Mar 78	8 Jun 80
Lt Col Ronald G. Marlar	9 Jun 80	10 Jul 80
Lt Col (Col) John D. Williams, Jr.	11 Jul 80	24 Jan 83

Col Thomas E. Diamond	25 Jan 83	21 Jun 85
Lt Col Bruce Fagaley (Acting)	22 Jun 85	4 Aug 85
Col Richard L. Fuller	5 Aug 85	27 Feb 90
Col Cecil F. Ross	28 Feb 90	

COMMAND HISTORIAN

The historian function originated in July 1942 as part of the Office of the Special Assistant to the Commanding General. On 18 November 1943, it became a section in the Intelligence and Security Division, remaining there until January 1952. At that time, the Historical Branch was assigned to the Office of Information Services. On 18 August 1969, the function became a separate entity called the Command Historical Office. Redesignated Office of MAC History in 1973.

Capt (Maj/Lt Col) Oliver La Farge	27 Jul 42	Jan 46
Capt (Dr) John D. Carter	Jan 46	20 Feb 47
Maj Thomas E. Holt	21 Feb 47	Fall 55
Mr Roland D. Hinds	Fall 55	30 Jun 70
Mr Charles W. Dickens	1 Jul 70	18 Mar 84
Mr Thomas A. Manning	19 Mar 84	7 Apr 84
Mr Charles W. Dickens	8 Apr 84	22 May 84
Dr James K. Matthews	11 Jun 84	10 Apr 87
Dr John W. Leland (Acting)	10 Apr 87	20 Jul 87
Dr Roger D. Launius	20 Jul 87	5 Oct 90
Dr John W. Leland (Acting)	5 Oct 90	27 Nov 90
Dr Jay H. Smith	28 Nov 90	

OPERATIONS PLANS

Established 31 August 1976, Deputy Chief of Staff, Operations Plans in connection with specified command status. Following transfer of the Operations Plans (OPLAN) Verification Division to USTRANSCOM in January 1988, merged into Deputy Chief of Staff, Programs and Resources, effective 20 September 1989.

Brig Gen Charles D. Youree, Jr.	15 Aug 76	31 Aug 77
Col Michael Murphy	1 Sep 77	31 May 78
Col Cecil O. Celhoun, Jr.	21 Jun 78	30 Jun 82
Col John D. Sims	1 Jul 82	11 Sep 86
Col Rolland F. Clarkson, Jr.	13 Sep 86	20 Sep 89

SAFETY/FLYING SAFETY

Flying Safety started as an independent function in 1953 and became Safety in 1960. The Inspector General took over the function's responsibilities in 1961.

Col Robert G. David	29 Jun 53	12 Jun 55
Lt Col Malcolm W. Seab	13 Jun 55	31 Jan 56
Col Willis B. Beightol	1 Feb 56	28 Feb 58
Lt Col Malcolm W. Seab (Acting)	1 Mar 58	9 Mar 58
Col Frank H. Wilcox	10 Mar 58	Aug 60
Col Heston McDonnel	Aug 60	Jun 61

OPERATIONS ANALYSIS

Dr Wendell A. Dwyer	5 Jul 66	Nov 74
Position Abolished		

ADJUTANT OR ADJUTANT GENERAL

Maj William H. Tunner	29 May 41	28 Oct 41
Maj Robert C. Hamlett	29 Oct 41	5 Jul 42
Lt Col Jarvis M. Harper	6 Jul 42	Mar 46
Lt Col Henry A. Beasley	Mar 46	Mar 47
Lt Col Bryon K. Enyart	Mar 47	Dec 47
Col Kenneth E. Thiebaud	Dec 47	3 Dec 50
Col Jerome S. Amold	4 Dec 50	5 Jul 53
Col James G. Hyland	6 Jul 53	19 Jan 55
Lt Col Samuel W. Marsh	20 Jan 55	24 Apr 55
Col Horace P. Bonnewitz	25 Apr 55	31 Jan 58
Position Abolished		

SENIOR NAVAL OFFICER

.

From 1956 until September 1958 this function was called Special Assistant to Commanding General (Naval).

Jul 56	2 Jul 57
3 Jul 57	Jun 59
Jun 59	Jul 60
Jul 60	30 Jun 62
1 Jul 62	4 Aug 63
5 Aug 63	18 Aug 65
19 Aug 65	21 Sep 65
22 Sep 65	4 Jun 67
б Jun 67	30 Jun 67
	Jul 56 3 Jul 57 Jun 59 Jul 60 1 Jul 62 5 Aug 63 19 Aug 65 22 Sep 65 5 Jun 67

POLITICAL ADVISOR

Mr Robert W. Winfree	30 Sep 62	2 Jun 65
Mr Murray E. Jackson	28 Jun 65	13 Jul 67
Position Vacant	14 Jul 67	21 Jan 68
Mr John J. Conroy	22 Jan 68	20 Jul 69
Mr Earle J. Richey	21 Jul 69	22 Aug 71
Mr Rollie H. White, Jr.	23 Aug 71	2 Jan 73
Mr Theodore A. Tremblay	4 Jan 73	-13 Jun 75
Mr John G. Bacon	18 Jun 75	10 Aug 77
Position Abolished		

APPENDIX III

UNIT LINEAGES (Active Units)

(Assumption of command dates are as best known)

TWENTY-FIRST AIR FORCE

McGuire AFB, New Jersey

Constituted the 23d Army Air Forces Ferrying Wing 12 June 1942, activated 18 June 1942, and assigned to Air Corps Ferrying Command. Redesignated North Atlantic Wing 5 July 1942; North Atlantic Division 27 June 1944; Atlantic Division 20 September 1945; Eastern Transport Air Force 1 July 1958; and Twenty-First Air Force 8 January 1966.

Assumed Command

Col (Brig Gen) Benjamin F. Giles	18 Jun 42
Col (Brig Gen) Lawrence G. Fritz	5 Oct 43
Maj Gen Lawrence S. Kuter	21 Sep 45
Maj Gen William H. Tunner	21 Sep 46
Brig Gen Archie J. Old	23 Jul 48
Maj Gen James W. Spry	1 Mar 50
Brig Gen Joseph C. Hopkins	21 May 53
Maj Gen Robert K. Taylor	25 Aug 53
Maj Gen Emery S. Wetzel	10 May 54
Maj Gen William S. Stone	15 Jul 67
Brig Gen Jack G. Merrill	2 Aug 59
Maj Gen William P. Fisher	14 Sep 59
Maj Gen George S. Brown	1 Aug 63
Brig Gen Robert J. Goewey	8 Sep 64
Maj Gen Donald W. Graham	1 Jun 65
Maj Gen William H. Brandon	25 Jul 67
Maj Gen Gilbert L. Curtis	26 Jul 69
Brig Gen John F. Gonge	10 Sep 71
Maj Gen Roland A. Campbell	20 Sep 71
Maj Gen Ray M. Cole	1 Mar 73
Maj Gen Lester T. Kearney, Jr.	1 Oct 73
Maj Gen Alden G. Glauch	23 May 75
Maj Gan Thomas M. Sadler	1 Sep 77
Maj Gen Duane H. Cassidy	1 Oct 83
Maj Gen Robert B. Patterson	1 Aug 84
Maj Gen Robert D. Springer	3 Oct 84
Maj Gen Jack W. Sheppard	2 Aug 85
Mai Gen Donald A. Logeais	5 Jun 87
Maj Gen Paul E. Landers, Jr.	27 Jul 90
	27 50 00

322D AIRLIFT DIVISION

Ramstein AB, Germany

Established as 322d Troop Carrier Wing 4 December 1944 and activated 30 December 1944, as part of Far East Air Forces. Inactivated 16 February 1946. Activated in the Reserve 12 June 1947 and redesignated 322d Air Division, Troop Carrier, 16 April 1948. Inactivated 27 June 1949. Redesignated 322d Air Division (Combat Cargo) and activated 1 March 1954, as part of United States Air Forces in Europe. Reassigned to Eastern Transport Air Force 1 April 1964 and inactivated 24 December 1968. Redesignated 322d Airlift Division 13 June 1978; activated and assigned to Twenty-First Air Force 23 June 1978.

Col Ray T. Elsmore	30 Dec 44
Col Leo H. Dawson	17 Oct 45
Col James L. Lee	Nov 45
Not manned	26 Jan 46
Inactive	15 Feb 46
Not manned	12 Jun 47
Col (Brig Gen) Dick R. Petty	14 Aug 47
Inactive	27 Jun 49
Col Lucion N. Powell	1 Mar 54
Brig Gen Franklin Rose	17 May 54
Col Clyde Box	22 May 56
Col (Brig Gen) Tarleton H. Watkins	13 Jun 59
Col Charles W. Howe	16 Jun 61
Brig Gen Robert D. Forman	1 Apr 64
Col Robert W. Relfe	27 Jan 66
Brig Gen Burl W. McLaughlin	28 Mar 66
Col Leland W. Johnson	14 Nov 67
Brig Gen Hugh E. Wild	27 Jan 68
Inactive	24 Dec 68
Brig Gen Click D. Smith	23 Jun 78
Col (Brig Gen) Robert D. Springer	30 Jun 80
Brig Gen (Maj Gen) William E. Overacker	14 Aug 81
Maj Gen Robert B. Patterson	9 Oct 84
Brig Gen (Maj Gen) Richard J. Trzaskoma	5 Sep 85
Brig Gen (Maj Gen) Paul A. Harvey	13 Nov 86
Maj Gen William H. Sistrunk	28 Jun 88
Col Bart C. Hogan	26 Jan 90
Brig Gen James L. Hobson Jr.	1 Mar 90

89TH MILITARY AIRLIFT WING Andrews AFB, Maryland

Established as 89th Troop Carrier Wing, Medium, 10 May 1949, activated in the Reserve 27 June 1949, and ordered to active service 1 May 1951. Inactivated 10 May 1951. Redesignated 89th Fighter-Bomber Wing 26 May 1952 and activated in the Reserve 14 June 1952. Inactivated 16 November 1957. Redesignated 89th Military Airlift Wing, Special Mission, and activated 27 December 1965. Organized 8 January 1966. Redesignated 89th Military Airlift Group 30 September 1977. Redesignated 89th Military Airlift Wing 15 December 1980. Upon activation, the Wing received by temporary bestowal the history, lineage, and honors of the 89th Troop Carrier Group for the period prior to 27 June 1949.

Assumed Command

		07
Brig Gen Hay J. Stecker		27 Jun 49
Lt Col William Binder		Jan 50
Col Howard C. Stelling		Feb 50
Capt John F. Coughlin		1 May 51
Inactive		10 May 51
Lt Col Thomas J. McGrath		14 Jun 52
Col Charles E. Flaherty	circa	28 Jun 52
Col Arthur C. Carroll	circa	1 Apr 55
Inactive		16 Nov 57
Not manned		27 Dec 65
Col Harlan C. Wilder		8 Jan 66
Col John G. Williams		1 Mar 67
Col Burgess Gradwell		25 Nov 69
Col Jay R. Wallace		29 Dec 72
Col Stewart Young		28 Jul 75
Col (Brig Gen) Paul E. Gardner		23 Jun 76
Col Robert E. Lowell		29 Oct 77
Col Donald J. Cipra		14 Nov 77

Col Larry D. Wright Col John F. Sievertson Col John H. Billings Col James L. Cole, Jr. Col Leonard J. Augustine Col William B. Morrison III Col Edward M. Bullard

Assumed Command

317TH TACTICAL AIRLIFT WING Pope AFB, North Carolina

Established as 317th Troop Carrier Wing, Heavy, 10 August 1948 and activated 18 August 1948. Inactivated 14 September 1949. Redesignated 317th Troop Carrier Wing, Medium, 3 July 1952 and activated 14 July 1952. Inactivated 25 September 1958. Activated 13 March 1963 and organized 15 April 1963. Redesignated 317th Troop Carrier Wing 1 March 1966 and 317th Tactical Airlift Wing 1 May 1967. On 1 December 1974, the unit was assigned to the Military Airlift Command. Upon activation, the Wing received by **temporary bestowal** the history, lineage, and honors of the 317th Tactical Airlift **Group** for the period prior to 18 August 1948.

Col Thomas K. Hampton		18 Aug 48
Col William A. Ross	circa	15 Aug 49
Inactive		14 Sep 49
Col Donald J. French		14 Jul 52
Col Harry M. Pike		23 Jul 54
Col Clarence B. Hammerle, Jr.		29 Jul 54
Col Joseph A. Cunningham		9 Sep 54
Not manned		17 Apr 57
Col Robert D. Forman		8 Jul 57
Col John B. Wallace		11 Sep 58
Inactive		25 Sep 58
Not manned		13 Mar 63
Col Arthur C. Rush		15 Apr 63
Col George W. Kinney		20 Jun 63
Col Harry S. Dennis, Jr.		27 Dec 65
Col Robert M. Levy		29 Jul 66
Col Jack J. Schneider		13 Sep 67
Col James A. Giles		28 Sep 67
Col Bill M. Richardson		18 Dec 67
Col James A. Giles		20 May 68
Col Bill M. Richardson		19 Jun 68
Col Richard J. Downs		2 Jan 70
Col Thomas G. Cline		14 Jul 71
Col Billie J. Norwood		31 Aug 71
Col Edwin F. Rumsey		13 Apr 73
Col Stewart Young		14 Sep 73
Col (Brig Gen) Robert F. Coverdale		6 Jun 75
Col Benjamin N. Kraljev, Jr.		8 Aug 77
Col (Brig Gen) Duane H. Erickson		28 Feb 79
Col Robert B. Patterson		29 Mar 80
Col Edsel R. Field		27 Feb 81
Col Frank E. Willis		18 Feb 83
Col Rolland F. Clarkson, Jr.		29 Feb 84
Col Ronnie C. Peoples		23 Sep 85
Col Edward N. Brya		26 Mar 87
Col Fredric N. Buckingham		19 Apr 88
Col Daniel E. Sowada		20 Jun 89
Col Maxwell C. Bailey		18 Jun 90

435TH TACTICAL AIRLIFT WING Rhein-Main AB, Germany

Established as 435th Troop Carrier Wing, Medium, 10 May 1949 and activated in the Reserve 26 June 1949. Ordered to active service 1 March 1951 and inactivated 1 December 1952. Activated in the Reserve 1 December 1952. Redesignated 435th Troop Carrier Wing, Heavy, 18 September 1961 and ordered to active service 1 October 1961. Returned to the Reserve 27 August 1962. Redesignated the 435th Troop Carrier Wing, Medium, 1 July 1963. Discontinued and inactivated 1 December 1965. Redesignated 435th Military Airlift Support Wing 25 November 1968 and activated 24 December 1968. Redesignated 435th Tactical Airlift Wing 1 July 1975. Upon activation, the Wing received by temporary bestowal the history, lineage, and honors of the 435th Troop Carrier Group for the period prior to 26 June 1949.

Assumed Command

Col Laurence B. Hickam		1949
Col Maurice F. Casey	by	May 50
Col James L. Daniel, Jr.		19 Dec 51
Maj William J. Frazier, Jr.		24 Oct 52
Unknown		1 Dec 52
Lt Col William Niedernhofer	by	Apr 53
Col John R. Pountnay		1953
Lt Col William C. Wilson		1 Dec 53
Col John R. Pountnay	by	Aug 55
Lt Col Robert C. Hutton	by	Dec 57
Col Forrest R. Harsh		Feb 59
Lt Col Clifford C. Root		11 Dec 63
Col Ben J. Mangina		1 Apr 64
Col Clifford C. Root		Jul 65
Inactive		1 Dec 65
Brig Gen Hugh E. Wild		24 Dec 68
Col Michael F. Robinson		7 Jan 70
Col Alden G. Glauch		1 Apr 70
Col E. Scott Minnich		20 Mar 71
Col John D. Hollowell		20 Jan 73
Brig Gen Theodore P. Crichton		1 Jul 75
Brig Gen Robert D. Springer		23 Jun 78
Col John D. Sims		30 Jun 80
Col Frank J. Kelly, Jr.		7 May 82
Col Ernest C. Peirolo		14 Oct 83
Col Ronnie C. Peoples		19 Apr 85
Col Bruce L. Fister		6 Sep 85
Col David O. Williams		4 May 88
Col John W. Handy		26 May 89
Col Thomas R. Mikolajcik		7 May 90

436TH MILITARY AIRLIFT WING Dover AFB, Delaware

Established as 436th Troop Carrier Wing, Medium, 10 May 1949 and activated in the Reserve 27 June 1949. Ordered to active service 1 April 1951 and inactivated 16 April 1951. Activated in the Reserve 18 May 1955 and inactivated 15 May 1958. Redesignated 436th Milltary Airlift Wing and activated 27 December 1965. Organized 8 January 1966. Upon activation, the Wing received by **temporary bestowal** the history, lineage, and honors of the 436th Troop Carrier Group for the period prior to 27 June 1949.

Col Albert M. Woody Inactive Col Peyton Gibson Lt Col Michael P. Yannell Not manned Assumed Command

27 Jun 49 16 Apr 51 18 May 55 1 Feb 57 *circe* 15 Nov 57

15 May 58 Inactive 27 Dec 65 Not manned 8 Jan 66 Brig Gen John B. Wallace 29 Jan 69 Brig Gen Fred W. Vetter, Jr. 10 Feb 69 círca Col Horaca W. Patch 6 Mar 69 Brig Gen Fred W. Vetter, Jr. 1 Aug 70 Brig Gen Kelton M. Farris 24 Aug 72 Col Willum H. Spillers, Jr. 11 Jun 73 Brig Gen Charles F. G. Kuyk, Jr. Col (Brig Gen) Click D. Smith, Jr. 3 Apr 75 Col William J. Mall, Jr. 15 May 78 Col Archer L. Durham 26 Feb 79 14 Feb 80 Col Albert C. Guidotti 26 Jan 82 Col Paul A. Harvey 17 Feb 83 Col William H. Sistrunk 14 Jan 85 Col (Brig Gen) Walter Kross 17 Jun 87 Col Albert W. Estes 26 Feb 88 Col Floyd K. Tedrow 14 Sep 89 Col William J. Begert 1 Jun 90 Col Michael A. Moffitt

437TH MILITARY AIRLIFT WING Charleston AFB, South Carolina

Established as 437th Troop Carrier Wing, Medium, 10 May 1949 and activated in the Reserve 27 June 1949. Ordered to active service 10 August 1950 and inactivated 10 June 1952. Activated in the Reserve 15 June 1952. Inactivated 16 November 1957. Redesignated 437th Military Airlift Wing and activated 27 December 1965. Organized 8 January 1966. Upon activation, the Wing received by **temporary bestowal** the history, lineage, and honors of the 437th Troop Carrier Group for the period prior to 27 June 1949.

Assumed Command

Brig Gen John P. Henebry	27 Jun 49
Col John W. Lacey	26 Jan 51
Col John R. Roche	26 Feb 51
Col Kenneth W. Northamer	May 52
Inactive	10 Jun 52
Col Reed G. Landis	15 Jun 52
Lt Col Edwin L. Preston	1 Sep 54
Col John W. Lacey	19 Jan 55
Lt Col Joseph E. Whitwell	2 May 57
Inactive	16 Nov 57
Not manned	27 Dec 65
Col (Brig Gen) Howard E. Kreidler	8 Jan 66
Brig Gen William V. McBride	26 Jul 66
Brig Gen Clare T. Ireland, Jr.	1 Mar 69
Brig Gen Thomas B. Kennedy	1 Aug 70
Brig Gen Robert L. Moeller	1 Apr 72
Brig Gen Thomas M. Sadler	1 Feb 74
Brig Gen Tedd L. Bishop	14 Mar 75
Col George B. Powers, Jr.	1 Mar 78
Col Eugene D. Robinett	20 Jun 79
Col Donald A. Logeais	23 Jun 81
Col Paul E. Landers, Jr.	20 Jun 83
Col James C. McCombs	28 Jun 85
Col James F. Hinkel	11 Jun 87
Col David B. Marcrander	17 May 88
Col John W. Handy	10 May 90
438TH MILITARY AIRLIFT WING

McGuire AFB, New Jersey

Established as 438th Troop Carrier Wing, Medium, 10 May 1949 and activated in the Reserve 27 June 1949. Ordered to active service 10 March 1951 and inactivated 14 March 1951. Redesignated 438th Fighter-Bomber Wing 26 May 1952 and activated in the Reserve 15 June 1952. Inactivated 16 November 1957. Redesignated 438th Military Airlift Wing and activated 27 December 1965. Organized and assigned to Military Airlift Command 8 January 1966. Upon activation, the Wing received by temporary bestowal the history, lineage, and honors of the 438th Troop Carrier Group for the period prior to 27 June 1949.

	Assumed Command
Col Robert E. Flesher	27 Jun 49
Inactive	14 Mar 51
Col Robert E. Haynes	15 Jun 52
Lt Col Joseph J. Lingle	19 Sep 56
Inactive	16 Nov 57
Not manned	27 Dec 65
Col (Brig Gen) Roland J. Barnick	8 Jan 66
Col Gilbert G. Smith, Jr. (Acting)	25 Jul 67
Col Gilbert G. Smith, Jr.	1 Aug 67
Brig Gen John H. Herring, Jr.	1 Aug 68
Col Gilbert G. Smith, Jr.	14 Jun 69
Brig Gen John W. Herrell, Jr.	11 Aug 69
Col (Brig Gen) Keith L. Christensen	30 Sep 70
Col (Brig Gen) George M. Wentsch	15 Jun 72
Col (Brig Gen) Emil N. Block, Jr.	28 Jan 74
Col James L. Gardner, Jr.	1 May 76
Col Duane H. Erickson	16 Feb 78
Col Allen G. Myers III	26 Feb 79
Col (Brig Gen) Larry D. Wright	9 Feb 81
Col John T. Lawell	6 Feb 83
Col (Brig Gen) James J. LeCleir	22 Jun 83
Col Jerold L. Weiss	13 Aug 85
Col Frank M. Pearce	12 Jun 87
Col William B. Morrison III	13 Jul 89
Col Kirby A. Woehst	19 Jul 90

834TH AIR BASE WING

Hurlburt Field, Florida

Established as 834th Air Base Group 30 August 1957 and activated 25 September 1957. Inactivated 1 April 1959. Redesignated 834th Combat Support Group and activated 24 June 1964. Organized 1 July 1964. Became part of Military Alriift Command 1 March 1983. Redesignated 834th Air Base Wing 21 May 1990.

	Assumed Command
Col Kenneth F. Grunewald	25 Sep 57
Col Bert M. Carleton	Jul 58
Col William D. Brady	1 Feb 59
Inactive	1 Apr 59
Not manned	24 Jun 64
Unknown	1 Jul 64
Lt Col Waller D. Bell	22 Sep 66
Col Andrew Kundrat	4 Jan 67
Col John K. Graham	9 May 67
Col Frank Merterly	26 Aug 68
Col Thomas R. Owens	15 Jul 69
Col Clair G. Thompson	31 Aug 72
Col Melvin H. Bryant	1 Jul 73

Col Leon McGoogan Col James F. Fantaski Col Eugene W. Steele Col Frederick E. Tokash Col Owen A. Heeter Col Thomas L. Stiles Col Donald A. Streater

> **1605TH MILITARY AIRLIFT SUPPORT WING** Laies Field, Azores

Established as 1605th Military Airlift Support Wing and activated 1 January 1982. Its commander also serves as the Commander, United States Forces, Azores.

> Brig Gen Duane H. Erickson Brig Gen Donald C. Smith Brig Gen (Sei) Donald A. Rigg Brig Gen Larry D. Wright Brig Gen James C. McCombs Brig Gen Charles C. Barnhill

1776TH AIR BASE WING Andrews AFB, Maryland

Established as 1776th Air Base Wing and activated 15 December 1980.

Assumed Command

61ST MILITARY AIRLIFT GROUP Howard AFB, Panama

Established as 61st Transport Group 20 November 1940 and activated 1 December 1940. Redesignated 61st Troop Carrier Group 4 July 1942. Inactivated 31 July 1945. Activated 30 September 1946. Redesignated 61st Troop Carrier Group, Medium, 1 July 1948 and 61st Troop Carrier Group, Heavy, 15 August 1948. Inactivated 8 October 1959. Redesignated 61st Military Airlift Group and activated 1 December 1984.

Not manned		1 Dec 40
Capt John Waugh		1 Feb 41
1st Lt Thompson F. Dow		1 Jul 41
Maj Lorin B. Hillsinger		11 Jul 41
1st Lt Charles A. Inskip		unknown
1st Lt Allen L. Dickey		unknown
Capt John C. Bennett		26 May 42
Maj Relph J. Moore	by	Sep 42

Col William A. Murphy Col Charles Z. Ridgway Col Wesley W. Bean Col William R. Phillips Col Richard R. Heinzman Col James H. White

Col Robert B. Christensen

1 Jan 82 25 Jun 82 22 May 84 15 Jul 86

Assumed Command

27 Jul 87

7 Jul 89

Maj Donald French		6 Mar 43
Maj (Lt Col) Willis W. Mitchell		11 Mar 43
Lt Col Stanley C. Hoyt	círca	6 Oct 43
Lt Col Willis W. Mitchell	circa	3 Nov 43
Lt Col Stanley C. Hoyt		25 Nov 43
Lt Col (Col) Willis W. Mitchell		11 Jan 44
Col Edgar W. Hampton		12 Apr 45
Lt Col (Col) James L. Daniel, Jr.		30 Sep 46
Col Walter J. Lee	by	Jul 47
Lt Col Daniel F. Riva		1 Jul 48
Lt Col John C. Evers		19 Aug 48
Col Richard W. DaVania		28 Aug 48
Col A. C. Strickland	by	Aug 49
Lt Col Jay D. Bogue	circa	25 Aug 49
Col Frank Norwood		1 Oct 49
Lt Col Hel E. Ercanbrack, Jr.		14 Feb 52
Col Lionel F. Johnson		29 Jul 53
Lt Col Jerome M. Triolo		7 Feb 54
Col Leland W. Johnson	by	Nov 54
Col William G. Forwood		13 Dec 54
Lt Col C. S. Hall		1958
Col Marshall H. Strickler		1959
unknown		1 Oct 59
Inactive		8 Oct 59
Col Wesley E. Jackey		1 Dec 84
Col Bernard F. Malcuit		28 Jul 85
Col Michael T. Clay		3 Jun 88
Col Frank C. Andrews II		10 Jun 90

313TH TACTICAL AIRLIFT GROUP RAF Mildenhall, United Kingdom

Established as 313th Transport Group 28 January 1942 and activated 2 March 1942. Redesignated 313th Troop Carrier Group 4 July 1942. Inactivated 15 November 1945. Activated 30 September 1946. Redesignated 313th Troop Carrier Group, Heavy, 30 July 1948 and 313th Troop Carrier Group, Special, 1 February 1949. Inactivated 18 September 1949. Redesignated 313th Troop Carrier Group, Medium, 26 November 1952 and activated 1 February 1953. Inactivated 8 June 1955. Redesignated 313th Tactical Airlift Group 24 August 1978 and activated 15 September 1978.

	Assumed Command
Unknown	2 Mar 42
Capt Fred W. Nelson	7 Mar 42
Col James J. Roberts, Jr.	26 Jun 42
Lt Col William A. Filer	18 Mar 45
Lt Col Paul W. Stephens	26 Mar 45
Lt Col Carl W. Campbell	<i>circa</i> Aug 45
Inactive	15 Nov 45
Col Clinton W. Davies	30 Sep 46
Not manned	25 Jun 47
Lt Col Walter R. Washburn, Jr.	15 Aug 47
Col Frank P. Bostrom	3 Dec 47
Lt Col Paul A. Jones	24 Nov 48
Lt Col Conway S. Hall	Feb 49
Inactive	18 Sep 49
Col Benton R. Baldwin	1 Feb 53
Col Steward H. Nichols	1 Oct 53
Inactive	8 Jun 55
Col Harry W. Williamson, Jr.	15 Sep 78
Col Edward V. McGee	4 Jun 79
Col Bruce F. Kolofske	25 Jun 82
Col Clifford A. Hodge	11 Jul 85
Col David O. Williams	31 Oct 85
Col Elmer C. Lavender II	29 Mar 88

608TH MILITARY AIRLIFT GROUP

Ramstein AB, Germany

Established as 608th Military Airlift Group 1 July 1983 and activated 1 August 1983.

Assumed Command

Col Leonard J. Augustine Col Vernon L. Pellman, Jr. Col James M. Murphy 1 Aug 83 19 May 86 20 May 89

625TH MILITARY AIRLIFT SUPPORT GROUP Torrejon AB, Spain

Activated 1 August 1983.

Assumed Command

Col Myles A. Rohrlick Col George L. Newton III Col Reuben T. Dixon, Jr. Col Jack E. Keeter, Jr. Col Thomas W. Griesser

MALCOLM GROW USAF MEDICAL CENTER Andrews AFB, Maryland

Established as 16th Station Medical Group and organized 10 March 1948 at Bolling AFB, DC as part of Headquarters Command. Redesignated 1100th Station Medical Group 19 July 1948, 1100th Medical Group 8 August 1949, and 1100th USAF Hospital 2 November 1953. Redesignated USAF Hospital Andrews 1 July 1958 and moved to Andrews AFB 1 August 1958. Redesignated Malcolm Grow USAF Hospital 18 October 1967 and Malcolm Grow USAF Medical Center 1 July 1969. Became part of Military Airlift Command 1 July 1976.

Lt Col Harold F. Funsch Maj Howard R. Lawrence Lt Col (Col) Raymond A. Lawn Lt Col Robert A. McCall Col Levi M. Browning Col (Maj Gen) Aubrey L. Jennings Col (Maj Gen) Aubrey L. Jennings Col (Maj Gen) Archle A. Hoffman Brig Gen Henry C. Dorris Brig Gen Maxwell W. Steel, Jr. Brig Gen Quintino J. Serenati Col (Brig Gen) Kermit Q. Vandenbos Brig Gen William H. Greenduke	10 Mar 48 <i>Unknown</i> 1 Nov 49 8 Jan 51 26 Feb 51 16 Sep 54 27 Jul 59 19 Jul 68 1 Aug 69 1 Aug 70 1 Oct 72 5 Aug 79
Brig Gen Henry C. Dorris	19 Jul 68
Brig Gen Maxwell W. Steel, Jr.	1 Aug 69
Brig Gen Quintino J. Serenati	1 Aug 70
Col (Brig Gen) Kermit Q. Vandenbos	1 Oct 72
Brig Gen William H. Greendyke	5 Aug 78
Brig Gen Monte B. Miller	23 Feb 80
Col (Brig Gen) Vernon Chong	29 Nov 81
Brig Gen Thomas P. Bail, Jr.	27 Mar 85
Brig Gen James G. Sanders	23 May 86
Brig Gen Stephen R. Shapiro	13 Feb 87
Brig Gen Robert W. Poel	25 Sep 90

TWENTY-SECOND AIR FORCE Travis AFB, California

Established as Domestic Division, Air Corps Ferrying Command, and activated 28 December 1941. Redesignated Domestic Wing 26 February 1942; Ferrying Division, Air Transport Command, 20 June 1942; Continental Division 28 February 1946. Discontinued 31 October 1946. Consolidated with organization established as Continental Division, Military Air Transport Service, and organized 1 July 1948. Redesignated Western Transport Air Force 1 July 1958 and Twenty-Second Air Force 8 January 1966.

Assumed Command

Col William H. Tunner	28 Dec 41
Col (Brig Gen/Maj Gen) Bob E. Nowland	1 Aug 44
Inactive	31 Oct 46
Unknown	1 Jul 48
Maj Gen James S. Stowell	1 May 50
Brig Gen (Maj Gen) Brooke E. Allen	12 May 55
Maj Gen Russell L. Waldron	29 May 57
Maj Gen Glen R. Birchard	10 Jul 61
Maj Gen George B. Dany	29 Jun 63
Maj Gen Joseph A. Cunningham	19 Jul 86
Maj Gen James C. Sherrill	3 Jun 68
Maj Gen William G. Moore, Jr.	1 Fo b 70
Maj Gen John F. Gonge	29 Aug 72
Maj Gen Thomas A. Aldrich	15 Aug 75
Brig Gen James L. Gardner, Jr.	1 Apr 78
Maj Gen Charles F. G. Kuyk, Jr.	17 Jul 78
Maj Gen Robert F. Coverdale	23 May 80
Maj Gen Donald W. Bennett	27 Jul 81
Maj Gen Donald D. Brown	29 Oct 84
Maj Gen Alexander K. Davidson	27 Feb 87
Maj Gen Richard J. Trzaskoma	26 Jul 89

834TH AIRLIFT DIVISION Hickam AFB, Hawaii

Established as 834th Air Division 30 August 1957 and activated 25 September 1957. Inactivated 1 April 1959. Activated 24 June 1964 and organized 1 July 1964. Inactivated 1 December 1971. Activated 31 January 1972 and inactivated 31 December 1974. Redesignated 834th Airlift Division 23 August 1978 and activated 1 October 1978.

	Assumed Command
Col Victor E. Warford	25 Sep 57
Brig Gen Ivan W. McElroy	circa 15 Jul 58
Inactive	1 Apr 59
Not manned	24 Jun 64
Col Richard V. Travis	1 Jul 64
Col (Brig Gen) William P. McBride	14 Jun 65
Col James J. England	18 Jun 66
Unknown	2 Aug 66
Not manned	13 Sep 66
Col Robert T. Simpson	15 Oct 66
Brig Gen William G. Moore, Jr.	30 Oct 66
Brig Gen Hugh E. Wild	1 Sep 67
Brig Gen William G. Moore, Jr.	26 Sep 67
Brig Gen Hugh E. Wild	12 Nov 67
Brig Gen (Maj Gen) Burl W. McLaughlin	29 Nov 67
Brig Gen John H. Herring, Jr.	23 Jun 69
Brig Gen John H. Germeraad	9 Jun 71
Inactive	1 Dec 71

Not manned Brig Gen Eugene W. Gauch, Jr. Col Robert F. Coverdale Inactive Col Jimmy L. Maturo Col Browning C. Wharton, Jr. Col Richard J. Trzaskoma Col (Brig Gen) Gary H. Mears Col (Brig Gen) Gary H. Mears Col (Brig Gen) James J. LeCleir Brig Gen Vernon J. Kondra Brig Gen James F. Hinkel

60TH MILITARY AIRLIFT WING Travis AFB, California

Established as 60th Troop Carrier Wing, Medium, and activated 1 July 1948. Redesignated 60th Troop Carrier Wing, Heavy, 5 November 1948 and 60th Troop Carrier Wing, Medium, 16 November 1949. Inactivated 25 September 1958. Redesignated 60th Military Airlift Wing and activated 27 December 1965. Organized and assigned to Military Airlift Command 8 January 1966. Upon activation, the Wing received by **temporary bestowal** the history, lineage, and honors of the 60th Troop Carrier **Group** for the period prior to 1 July 1948.

Col Bertram C. Harrison		1 Jul 48
Col Henry W. Dorr		27 Aug 48
Lt Col Benjamin A. Karsokas		16 Dec 48
Col Robert C. Paul		22 Dec 48
Col Theron H. Coulter		20 Jan 49
Col James J. Roberts, Jr.		1 Oct 49
Col Hilbert M. Wittkop		8 Oct 49
Col James J. Roberts, Jr.		3 Apr 50
Col Auby C. Strickland		2 Jun 51
Col Laurence B. Kelly		13 Jul 52
Col Harry S. Bishop		1 Nov 53
Col Clyde Box		1 Aug 55
Unknown		14 Feb 56
Col Randolph E. Churchill	circa	22 May 56
Col James W. Ingram	circa	Jul 58
Inactive		25 Sep 58
Not manned		27 Dec 65
Brig Gen Maurice F. Casey, Jr.		8 Jan 66
Brig Gen James A. Hill		8 Jul 68
Brig Gen John H. Germeraad		1 Mar 70
Brig Gen Ralph S. Saunders		14 May 71
Col (Brig Gen) Charles E. Shannon		16 May 73
Col (Brig Gen) Harry A. Morris		15 Oct 73
Col Donald W. Bennett		2 May 75
Col Allen L. Trott, Jr.		1 Sep 77
Col Richard J. Trzaskoma		15 Feb 79
Col Howard D. Jumper		7 May 80
Col Anthony J. Burshnick		21 Jul 80
Col Robert W. Sample		8 Mar 82
Col Robert V. Woods		27 Feb 84
Col Thomas D. Pilsch		29 May 86
Col John C. Tait		6 Apr 88
Col Bobby O. Floyd		2 Jun 89
Col William J. Beggert		18 Jun 90

62D MILITARY AIRLIFT WING McChord AFB, Washington

Established as 62d Troop Carrier Wing 28 July 1947 and organized 15 August 1947. Redesignated 62d Troop Carrier Wing, Medium, 22 August 1948 and 62d Troop Carrier Wing, Heavy, 12 October 1949. Inactivated 1 June 1950, activated 17 September 1951, and redesignated 62d Air Transport Wing, Heavy, 1 January 1965. Redesignated 62d Military Airlift Wing 8 January 1966. Upon activation, the Wing received by **temporary bestowal** the history, lineage, and honors of the 62d Troop Carrier **Group** for the period prior to 15 August 1947.

	Assumed Command
Col Julius A. Kolb	15 Aug 47
Col Fred C. Nelson	10 Apr 48
Not mannad	2 May 50
Inactive	1 Jun 50
Brig Gen Harold W. Bowman	17 Sep 51
Col Edward T. Imparate	19 Mar 52
Brig Gen Harold W. Bowman	Apr 52
Brig Gen George F. McGuire	18 Sep 54
Col John M. Hutchison	26 May 58
Col Harold M. Brecht	13 Jun 60
Col Allison C. Brooks	15 Aug 60
Col Tracy J. Petersen	<i>by</i> 27 Feb 63
Col Allison C. Brooks	May 63
Col Tracy J. Petersen	3 Jan 64
Col Hugh E. Wild	7 Aug 64
Col Theodore P. Tatum	16 Nov 66
Col (Brig Gen) Clare T. Ireland, Jr.	9 Jun 67
Col John H. Germeraad	16 Feb 69
Brig Gen Arthur W. Cruikshank, Jr.	19 May 69
Brig Gen John H. Germeraad	22 Aug 69
Brig Gen Van N. Backman	1 Mar 70
Col (Brig Gen) Benjamin F. Starr, Jr.	31 May 73
Col Donald W. Bennett	12 Aug 73
Col (Brig Gen) Edward J. Nash	14 Aug 73
Col Allan K. Andreason	8 Aug 75
Col Donald D. Brown	1 Jul 77
Col James D. Kellim	20 Feb 79
Col Donald C. Smith	18 Sep 79
Col Jerry P. Harmon	24 Mar 82
Col Vernon J. Kondra	23 Mar 84
Col Edwin E. Tenoso	19 May 86
Col Michael J. McCarthy	16 Aug 89

63D MILITARY AIRLIFT WING Norton AFB, California

Established as 63d Troop Carrier Wing, Medlum, 10 May 1949 and activated in the Reserve 27 June 1949. Ordered to active duty 1 May 1951 and inactivated 9 May 1951. Redesignated 63d Troop Carrier Wing, Heavy, 18 December 1952 and activated 8 January 1953. Redesignated 63d Military Airlift Wing 8 January 1966. Upon activation, the Wing received by temporary bestowal the history, lineage, and honors of the 63d Troop Carrier Group for the period prior to 27 June 1949.

Brig Gen Robert L. Copsey		Jun 49
Col Clayton Stiles		9 Sep 50
Inactive		9 May 51
Brig Gen Glynne M. Jones	circa	Mar 53
Col Eston E. Selvey		Jan 53
Brìg Gen Glynne M. Jones	circa	Mar 53

Brig Gen Edgar W. Hampton		Feb 55
Coi Chester C. Moomaw	circa	Sep 58
Col (Brig Gen) Andrew B. Cannon		15 Sep 58
Col Roland J. Barnick		29 Sep 61
Col Leland W. Johnson		24 Jun 64
Col Gilbert L. Curtis		8 Jul 64
Col Lopez J. Mantoux		7 Apr 66
Col James A. Evans, Jr.		4 Nov 66
Brig Gen Gilbert L. Curtis		1 Apr 67
Brig Gen Louis G. Griffin		6 Jul 68
Brig Gen John F. Gonge		1 Feb 70
Brig Gen Lester T. Kearney, Jr.		28 Feb 71
Brig Gen Erskine Wigley		12 Mar 73
Brig Gen Benjamin F. Starr, Jr.		15 Aug 74
Brig Gen William E. Carson		15 Jul 75
Col (Brig Gen) George B. Powers, Jr.		9 Jul 76
Brig Gen Duane H. Cassidy		21 Feb 78
Col (Brig Gen) Claudius E. Watts III		7 Jul 80
Col Charles A. Vickery		24 Feb 82
Col Thomas E. Eggers		25 Jun 84
Col Marvin S. Ervin		26 Jun 86
Col Brooke P. Bailey		7 Apr 88
Col Robert F. Neal		23 Jul 90

314TH TACTICAL AIRLIFT WING Little Rock AFB, Arkansas

Established as 314th Troop Carrier Wing, Medium, 4 October 1948 and activated 1 November 1948. Redesignated 314th Troop Carrier Wing 1 January 1967 and 314th Tactical Airlift Wing 1 August 1967. The Wing received by temporary bestowal the history, lineage, and honors of the 314th Troop Carrier Group for the period prior to 1 November 1948.

Col Hoyt L. Prindle	1 Nov 48
Col Norton H. Van Sicklen	31 Aug 50
Col Hoyt L. Prindle	28 Dec 50
Col Norton H. Van Sicklen	1 Jun 52
Col William H. DeLacey	2 Jul 52
Col Hoyt L. Prindle	23 Aug 52
Cosl Marvin L. McNickle	6 Jul 54
Col William Lewis, Jr.	1 Jul 56
Col Adriel N. Williams	21 Jul 56
Col Charles W. Howe	1 Aug 57
Col John T. Hylton, Jr.	8 Oct 57
Lt Col William F. Kelleher	30 May 58
Col Daniel F. Tatum	18 Jul 58
Col George M. Foster	16 Jul 60
Col William H. DeLacey	17 Aug 60
Col William G. Moore, Jr.	13 Aug 62
Col Arthur C. Rush	1 Sep 63
Col Paul A. Jones	14 Feb 67
Col Lyle D. Lutton	12 Mar 68
Col Albert W. Jones	12 Oct 68
Col William T. Phillips	15 Jul 70
Col Ray C. Staley	22 Jan 71
Col Andrew P. Iosue	15 May 71
Col Richard J. Glbney	31 May 71
Col Richard T. Drury	31 Jul 72
Col Frank W. Janssen	14 May 73
Brig Gen Eugene W. Gauch, Jr.	18 Oct 73
Col Robert F. Coverdale	3 Nov 73

Col John E. Davis Brig Gen Russell E. Mohney Col Donald M. Nagel Col (Brig Gen) Alfred G. Hansen Col Dan W. Freeman Col William A. Kehler Col Floyd E. Hargrove Col Charles C. Barnhill, Jr. Col Donald E. Loranger Col Albert R. Hart

Col George R. Durham, Jr.

374TH TACTICAL AIRLIFT WING

Yokota AB, Japan

Established as 374th Troop Carrier Wing, Heavy, 10 August 1948 and activated 17 August 1948. Inactivated 1 July 1957. Redesignated 374th Troop Carrier Wing and activated 27 June 1966. Organized 8 August 1966. Redesignated 374th Tactical Airlift Wing 1 August 1967, Transferred from Pacific Air Forces to Military Airlift Command 31 March 1975. Moved to Yokota AB, Japan, 1 April 1990. The Wing received by temporary bestowal the history, lineage, and honors of the 374th Troop Carrier Group for the period prior to 17 August 1948.

Assumed Command

Col Charles K. Moore	17 Aug 48
Col James C. Jensen	Feb 49
Col Troy W. Crawford	19 Jun 49
Col Charles W. Howe	Sep 51
Col James W. Chapman, Jr.	9 Aug 52
Col Adriel N. Williams	1 Mar 54
Col Francis W. Williams	16 Jun 56
Col James R. Haun	22 Jun 57
Inactive	1 Jul 57
Not manned	27 Jun 66
Col John R. Neal	8 Aug 66
Col Russell D. Crane	16 Jun 67
Brig Gen Kelton M. Farris	25 Jan 69
Col Nobel F. Greenhill, Jr.	11 Jul 70
Col Andrew P. Iosue	31 May 71
Col James I. Baginski	18 May 73
Col Albert M. Navas	12 Feb 75
Col James I. Baginski	24 Apr 75
Col Albert M. Navas	1 Aug 75
Col Gary G. Boettcher	15 Aug 77
Col Jimmy L. Maturo	29 Aug 77
Col James H. Mahew	1 Oct 78
Col Browning C. Wharton, Jr.	31 Oct 78
Col James W. Alexander	27 Jun 80
Col Frank E. Willis	8 Jun 81
Col Lowell G. Fathera	11 Feb 83
Col Frank Cardile	27 Jun 85
Col Robert Y. Foerster	21 Apr 88
Col George R. Durham, Jr.	25 Jul 90

375TH MILITARY AIRLIFT WING Scott AFB, Illinois

Established as 375th Troop Carrier Wing, Medium, 10 May 1949 and activated in the Reserve 27 June 1949. Ordered to active service 15 October 1950. Inactivated 14 July 1952. Activated in the Reserve 14 July 1952. Inactivated 16 November 1957. Redesignated 375th Aeromedical Airlift Wing and activated 27 December 1966. Organized 12 January 1966.

Redesignated 375th Military Airlift Wing 30 March 1990. Upon activation, the Wing received by temporary bestowal the history, lineage, and honors of the 375th Troop Carrier Group for the period prior to 27 June 1949.

Assumed Command

Brig Gen Emil H. Molthan		27 Jun 49
Col William S. Johnston		14 Sep 49
Lt Col Stanley V. Fowler	circa	Aug 50
Col Lance Call		Sep 50
Col Glynne M. Jones		3 Mar 52
Brig Gen Franklin Rose		22 May 52
Col Arthur R. Anderson		14 Jul 52
Col Jack R. Adams		Mar 53
Col Albert B. Starr		1 Sep 55
Inactive		16 Nov 57
Not manned		27 Dec 65
Col William E. Nix		12 Jan 66
Col Felix G. Brenner		3 Aug 66
Col Harry L. Waesche		6 Sep 66
Col Robert G. Moeller		1 Oct 68
Col John W. Self		1 Nov 69
Col Muller L. Jones		13 May 71
Col Frank W. Contestable		24 May 71
Col Charles C. Irions		31 May 74
Col Paul A. Bergerot		30 Jun 75
Col Hubert S. Diamond		29 Jan 76
Col John A. Doglione		9 Jun 78
Col Bruce M. Purvine		22 May 81
Col John E. Massingale		10 Jun 82
Col Louis V. Pelini		25 May 84
Col Richard B. Fowler II		22 Oct 86
Col Bobbie L. Mitchell		31 May 88
Col Walter S. Hogle, Jr.		12 Oct 89
Col Robert J. Boots		8 Jun 90

443D MILITARY AIRLIFT WING, TRAINING Altus AFB, Oklahoma

Established as 443d Troop Carrier Wing, Medium, 10 May 1949 and activated in the Reserve 27 June 1949. Ordered to active service 1 May 1951. Inactivated 8 January 1953. Redesignated 443d Military Airlift Wing, Training, and activated 27 December 1965. Organized 8 January 1966. Upon activation, the Wing received by temporary bestowal the history, lineage, and honors of the 443d Troop Carrier Group for the period prior to 27 June 1949.

Brig Gen Robert J. Smith	27 Jun 49
Col William E. Shuttles	11 Aug 50
Inactive	8 Jan 53
Not manned	27 Dec 65
Col Mahlon B. Hammond	8 Jan 66
Col Jerome M. Triolo	30 Jun 66
Col Weldon Newquist	14 Aug 68
Col George M. Wentsch	18 Sep 70
Brig Gen Eugene B. Sterling	9 Jun 72
Brig Gen Tedd L. Bishop	14 May 73
Col Harry F. Smith, Jr.	7 Mar 75
Col (Brig Gen) Maurice C. Padden	9 Jun 78
Col (Brig Gen) Philip S. Prince	30 Apr 80
Col Jimmie L. Jay	19 Aug 81
Col Richard C. Milnes II	3 Jun 83
Col John E. Haseltíne	21 Jan 85
Col Edward S. Brannum	25 Mar 88
Col Walter S. Hogle, Jr.	11 Jun 90

463D TACTICAL AIRLIFT WING Dyess AFB, Texas

Established as 463d Troop Carrier Wing, Medium, 1 December 1952 and activated 16 January 1953. Redesignated 463d Troop Carrier Wing, Assault, 1 October 1962; 463d Troop Carrier Wing, Medium, 15 May 1965; 463d Troop Carrier Wing 8 December 1965; and 463d Tactical Airlift Wing 1 August 1967. Inactivated 31 December 1971. Activated 1 June 1972, the unit was transferred 1 December 1974 from the Tactical Air Command to the Military Alrlift Command. Upon activation, the Wing received by **temporary bestowal** the history, lineage, and honors of the 463d Troop Carrier Group for the period prior to 16 January 1953.

Col George L. Holcomb 16 Jan⁻ 53 Brig Gen Cecil H. Childre 20 Aug 54 Col James L. Daniel, Jr. 4 Jun 57 Col Luther O'Hern 25 Sep 57 Col James L. Daniel, Jr. 11 Dec 57 Col George G. Norman 25 Jun 58 Col George G. Byrnes, Jr. 18 Jun 60 Col Earl W. Worley 22 Sep 60 9 Jul 62 Col George G. Byrnes, Jr. Col Ralph L. Reeve 22 Aug 62 Col Arthur E. Aenchbacher 17 Oct 64 Col Lopez J. Mantoux 7 Nov 66 7 Dec 67 Col Thomas A. Twomey Col Marion F. Caruthers 12 Apr 68 Col Charles S. Wolfe 9 May 69 Col John R. Gever 2 Jul 70 Col Stewart Young 2 Sep 71 Inactiva 31 Dec 71 1 Jun 72 Col Richard T. Drury 20 Jun 72 Col Robert F. Coverdale 2 Nov 73 Col Bruce D. Ferrier Col Russell E. Mohney 11 Feb 75 Col Sam B. Barrett 13 Jan 76 Col Ivan D. Brown 7 Mar 77 Col Robert B. Patterson 22 Mar 79 Col Alexander K. Davidson 25 Mar 80 Col John D. Butterfield 21 Jun 82 Col Hanson L. Scott 17 Jun 85 Col Fredric N. Buckingham 18 Aug 86 Col Kenneth E. McAlear 14 Apr 88 Col Albert R. Hart 24 May 88 Col Robert A. Maguire 1 Nov 89

1550TH COMBAT CREW TRAINING WING Kirtland AFB. New Mexico

Established as 1550th Aircrew Training and Test Wing and activated 1 April 1971. Redesignated 1550th Combat Crew Training Wing 15 May 1984.

Col	Malcolm C. Frazee
Col	Erskine Wigley
Col	William E. Moore
Col	Dale L. Oderman
Col	Ned L. Cagle
Col	Bruce M. Purvine
Col	Charles R. Skinner

Assumed Command

Assumed Command

Col Floyd E. Hargrove Col Larry D. Parsons Col Roland J. Page Col Charles R. Holland 18 Jan 83 5 Apr 85 17 Jun 87 15 Jun 89

1606TH AIR BASE WING Kirtland AFB, New Mexico

Established as 1606th Air Base Wing and activated 1 July 1977. Assigned to Twenty-Second Air Force 1 July 1977, Twenty-Third Air Force 1 October 1983, and again to Twenty-Second Air Force 22 May 1990.

	Assumed Command
Col Archer L. Durham	1 Jul 77
Col (Brig Gen) Jack W. Sheppard	21 Feb 79
Col James N. Hockney	22 Jun 81
Col Robert E. Purves	7 May 82
Col Gary H. Mears	7 Jun 82
Col David W. Scott	1 Jul 83
Col Charles G. Thomas	3 Jun 85
Col Thomas W. Sullivan	2 2 Jul 88
Col Edward S. Brannum	14' Jun 90

603D MILITARY AIRLIFT SUPPORT GROUP Kadena AB, Japan

Constituted 603d Military Airlift Support Squadron and activated 27 December 1965. Organized 8 January 1966. Inactivated 1 January 1986. Consolidated 3 March 1987 with the 603d Military Airlift Support Group (established 8 November 1985; activated 1 January 1986).

	Assumed Command
Col William M. McKinzie	66 net 8
Col Matthew J. Freda	20 Sep 67
Col Hugh L. Baynes	29 Mar 69
Col Thomas P. Edwards, Jr.	30 Aug 71
Col Robert G. Caesar	5 Jul 72
Col Frederick L. Breitinger	3 May 75
Col Franklin C. Whitwell	19 Aug 77
Col Myles A. Rohrlick	29 Aug 79
Col Joseph W. Kerr	15 Jan 82
Col Michael Mullen	20 Jul 84
Col Jack A. Martines	10 Jul 87
Col Jerry D. Clearman	23 Jul 90

611TH MILITARY AIRLIFT SUPPORT GROUP Osan AB, Korea

Constituted 611th Military Airlift Support Squadron 18 March 1969. Activated 8 April 1969. Inactivated 1 January 1986. Consolidated 3 March 1987 with the 611th Military Airlift Support Group (established 8 November 1985; activated 1 January 1986).

Assumed Command

Maj Robert J. McClellan Maj Merritt B. Pound, Jr. 8 Apr 69 1 Jun 69

Lt Col Bruce M. Tobey Lt Col Donald E. Lockstrom Lt Col Lloyd S. Jacobson Lt Col Russell N. Herring Lt Col Richard W. Cross Lt Col Don S. Bengston Maj Donald B. Justice Lt Col Donald G. Lawson Lt Col Michael L. Beavers Lt Col Dan A. Roberts Lt Col Lawrence E. Bielstein Lt Col Edward D. McCall Lt Col Jack A. Martines Col Jerold L. Weiss Col Albert L. Abernathy Col Ralph E. Olson Col William L. Wacker Col Dennis D. Wood

616TH MILITARY AIRLIFT GROUP Elmendorf AFB, Alaska

Constituted 616th Military Airlift Support Squadron and activated 27 December 1965. Organized 8 January 1966. Inactivated 26 March 1973. Redesignated 616th Military Airlift Group 30 October 1975 and activated 1 November 1975.

	Assumed Command
Maj Keith D. Ricks	8 Jan 66
Maj Thomas A. O'Neill	14 Feb 66
Col Ernest E. Triplett	1 Jun 67
Lt Col James E. Conover	15 May 68
Col John Combe III	29 Jun 68
Col Jack H. Wrinkle	29 May 69
Col Gerald V. Kehrli	14 May 70
Lt Col (Col) Craig W. Bergin	22 Nov 70
Col Robert F. Sherman	8 Jun 71
Col Glenn W. Jones	2 Jun 72
Inactive	26 Mar 73
Col James R. Olson	1 Nov 75
Col Robert C. Ingram, Jr.	14 Jun 78
Col Philip J. Riede	7. Nov 80
Col James E. Callahan	24 Aug 83
Col William P. Martin, Jr.	7 Aug 86
Col Harvey W. C. Shelton	20 Jun 90

624TH MILITARY AIRLIFT SUPPORT GROUP Clark AB, Philippines

Established as 624th Military Airlift Support Group 8 May 1989 and activated 1 October 1989.

Assumed Command

Col Alvin C. Schweizer II

1 Oct 89

DAVID GRANT USAF MEDICAL CENTER

Travis, California

Established as 4167th Hospital and organized 15 February 1954 as part of the Strategic Air Command. Reassigned to the Military Air Transport Service (later Military Airlift Command) and redesignated USAF Hospital Travis 1 July 1958. Redesignated David Grant USAF Hospital 1 July 1966 and David Grant USAF Medical Center 1 July 1969.

Assumed Command

Col W. F. Dewitt	Feb 54
Col George F. Baier III	11 May 54
Col Nuel Pazdral	Oct 55
Col John W. Linfesty	Unknown
Col Nuel Pazdral	Oct 59
Col John Ficicchy, Jr.	11 Jan 60
Col Ralph P. Campanale	1 Jun 62
Col James B. Anderson	27 Aug 63
Col James P. Jemigan	27 Jan 64
Col John A. Norcross	Mar 67
Col (Brig Gen) George E. Reynolds	J ยl 71
Col (Brig Gen) Evan W. Schear	Jul 72
Col Monte B. Miller	1 May 75
Col William L. Lee, Jr.	15 Aug 77
Col Vernon Chong	1 Nov 78
Col Frederick W. Plugge IV	Dec 81
Col Paul D. Gleason	8 Apr 85
Col Marshall S. Cook	17 Mar 86
Col Robert W. Gilmore	29 Jun 90

USAF MEDICAL CENTER SCOTT Scott AFB, Illinois

Designated 3310th Medical Squadron and organized 26 August 1948, at Scott AFB IL, as part of Air Training Command. Redesignated 3310th Station Medical Squadron 1 November 1948, 3310th Medical Group 23 March 1950, and 3310th USAF Hospital 16 October 1953. Reassigned to Military Air Transport Service (later Military Airlift Command) and redesignated 1405th USAF Hospital 1 October 1957. Redesignated USAF Hospital Scott 1 July 1958 and USAF Medical Center, Scott, 1 July 1969.

	Ass	umed Command
Col Louis J. Pohl		26 Aug 48
Col John E. Pluenneke		17 Feb 49
Lt Col (Col) Harold F. Funsch		Oct 49
Col Daniel R. Sewell		1 Oct 51
Lt Col Richard J. Brightwell		11 Aug 55
Col Carl B. Stilson		26 Nov 55
Col Edger H. Underwood, Jr.		1 Jul 59
Col Oakley K. Park		2 Jul 64
Col Herbert V. Swindell	by	Jul 71
Col Robert M. Dean	by	Jul 73
Col John W. Ord	Ьу	Jul 74
Col (Brig Gan) William H. Greendyke	by	Jul 75
Col Warner H. Gustavson		1 Aug 78
Col Lawrence R. Smith	by	Jun 83
Col Marion J. Williams	by	Dec 83
Col Michael J. Torma		1 Jul 85
Col Paul K. Carlton, Jr.		19 May 88

AEROSPACE AUDIOVISUAL SERVICE Norton AFB, California

The Air Pictorial Service was established as a Separate Operating Agency 1 April 1951. Redesignated Air Photographic and Charting Service and reassigned to Military Air Transport Service (later, Military Airlift Command) 16 April 1952, losing SOA status. Redesignated Aarospace Audio-Visual Service 8 January 1966 and Aerospace Audiovisual Service 1 May 1981.

	Assumed Command
Brig Gen Brooke E. Allen	1 Apr 51
Brig Gen Edwin M. Day	24 Sep 52
Col William S. Barksdale, Jr.	1 Mar 58
Maj Gen Clifford H. Rees	20 Mar 58
Brig Gen Robert W. Hall	1 Aug 62
Brig Gen John B. Wallace	1 Jul 64
Col John J. LaRoche	5 Apr 65
Col William S. Barksdale, Jr.	19 Apr 65
Col William E. Nix	1 Jun 68
Col Alterio Gallerani	16 Jan 70
Col James P. Warndorf	1 Apr 72
Col Theodore N. Mace	28 Feb 75
Col John B. Kerr, Jr.	30 Mar 79
Col James D. Elmer	3 Apr 80
Col Louis V. Pelini	31 Oct 86
Col Thomas E. Diamond	29 Mar 89

AIR RESCUE SERVICE McClellan AFB, California

Air Rescue Service was established and assigned to Air Transport Command 13 March 1946. The unit was redesignated Aerospace Rescue and Recovery Service 8 January 1966 and realigned under the Twenty-Third Air Force 1 March 1983. Redesignated Air Rescue Service and reassigned to Military Airlift Command 1 August 1989.

Col Wallace S. Ford	29 May 46
Col Richard T. Kight	1 Dec 46
Col J. C. Bailey	9 Jul 52
Brig Gen Thomas J. DuBose	19 Aug 52
Brig Gen Joseph A. Cunningham	1 Aug 59
Col Theodore P. Tatum	22 Jun 63
Brig Gen Adriel N. Williams	1 Aug 63
Col (Brig Gen/Maj Gen) Allison C. Brooks	8 Mar 65
Brig Gen Frank K. Everest, Jr.	24 Apr 70
Brig Gen Glenn R. Sullivan	1 Mar 73
Maj Gen Ralph S. Saunders	1 Aug 74
Brig Gen (Maj Gen) Cornelius Nugteren	29 Sep 79
Brig Gen (Maj Gen) William J. Mall, Jr.	21 Aug 81
Brig Gen Philip S. Prince	1 Mar 83
Col Owen A. Heeter	1 Oct 83
Col Robert S. Michelsen	1 Oct 85
Col Charles R. Hagerhjelm	26 Feb 88
Col Eric E. Wheaton	1 Aug 89
Col John D. Woodruff	1 Aug 90

AIR WEATHER SERVICE Scott AFB, Illinois

Constituted 13 April 1943, it was activated the next day as the Weather Wing and assigned to the Flight Control Command at Washington, DC. The wing moved to Asheville, North Carolina, 3 May 1943 and was redesignated as the Army Air Forces Weather Wing and reassigned to the Headquarters, Army Air Forces 6 July 1943. It was redesignated as the Army Air Forces Weather Service 1 July 1945 and moved to Langley Field, Virginia, 7 January 1946. It was redesignated as Air Weather Service and reassigned to the Air Transport Command 13 March 1946. It moved to Gravelly Point, Virginia, 14 June 1946 and was reassigned to the Military Air Transport Service (later Military Airlift Command) 1 June 1948. Air Weather Service moved to Andrews AFB, Maryland, 1 December 1948 and to Scott AFB, Illinols, 23 June 1958.

Assumed Command

Lt Col (Col) William O. Senter	14 Apr 43
Col James W. Twaddell, Jr.	15 Mar 45
Col (Brig Gen) Donald N. Yates	1 Jul 45
Col (Brig Gen; Maj Gen) William O. Senter	1 Aug 50
Brig Gen (Maj Gen) Thomas S. Moorman, Jr.	23 Арт Б4
Col Norman L. Peterson	20 Mar 58
Maj Gen Harold H. Bassett	13 Nov 58
Brig Gen Norman L. Peterson	1 Nov 59
Brig Gen Roy W. Nelson, Jr.	18 Mar 63
Col (Brig Gen;Maj Gen) Russell K. Pierce, Jr.	6 Oct 65
Brig Gen William H. Best, Jr.	27 Jul 70
Brig Gen Thomas A. Aldrich	30 Jun 73
Brig Gen John W. Collens III	15 Feb 74
Brig Gen Berry W. Rowe	6 Aug 75
Brig Gen Albert J. Kaehn, Jr.	17 Aug 78
Col (Brig Gen) George E. Chapman	30 Jul 82
Col (Brig Gen) John J. Kelly, Jr.	1 Jul 88

1ST WEATHER WING

Hickam AFB, Hawaii

The unit was established as 1st Weather Wing 24 November 1953 and activated and assigned to Air Weather Service 8 February 1954.

	Assumed Command
Col James W. Twaddell	8 Feb 54
Col Karl T. Rauk	30 Jun 54
Col Anthony T. Shtogren	Dec 64
Col Maxwell W. Roman	1 Jul 57
Col Nicholas H. Chavasse	24 Sep 57
Col John J. Jones	18 Jul 60
Col William S. Barney	5 Aug 61
Col Robert L. Sorey	17 Jul 63
Col Ralph G. Suggs	27 Jun 66
Col Lowell A. Stiles	14 Jul 67
Col Hubert E. Harvey	30 Nov 70
Col Morris H. Newhouse	30 Jul 71
Col William E. Cummins II	3 Jun 74
Col Alphonse Gargiulo, Jr.	29 Jul 75
Col Joseph E. Tucker	3 May 76
Col Norman F. Rauscher	30 Jun 78
Col Robert E. Julian	17 Dec 82
Col Paul D. Try	12 Jul 85
Col Floyd F. Hauth	3 May 87
Col Thomas K. Klein	14 Jul 89

2D WEATHER WING Ramstein AB, Germany

The unit was established as 2d Weather Wing 24 November 1953 and activated and assigned to Air Weather Service 8 February 1954.

	Assumed Command
Col Norman L. Peterson	8 Feb 54
Col James T. Seever, Jr.	2 Jul 54
Col Roy W. Nelson, Jr.	2 Feb 57
Col Frederick J. Cole	3 Jul 60
Col Richard M. Gill	22 Jul 60
Col Arthur W. Anderson	5 Jul 63
Col George E. Rath	8 Jul 63
Col Thomas J. Arbogast	7 Jul 66
Col James M. Burkhart	10 Jun 70
Col Joseph M. Tyndall	2 Jul 73
Col Robert S. Wood	15 Oct 73
Col Wilson J. Boaz	9 Jul 75
Col Charles O. Jenista, Jr.	16 Aug 76
Col Lynn L. LeBlanc	15 Sep 79
Col Billy L. Moore	3 Jul 80
Col James W. Hall	24 Jul 80
Col Tommy D. Guest	12 Aug 82
Col James O. Ivory	17 Jun 83
Col Gary S. Zeigler	28 Jun 85
Col Ronald R. Brown	10 Jun 88
Col Robert P. Wright	20 Jul 90

3D WEATHER WING Offutt AFB, Nebraska

The unit was established 3d Weather Wing 25 September 1956 and activated and assigned to Air Weather Service 8 October of that year.

	Assumed Command
Col Frederick J. Cole	8 Oct 56
Col Anthony T. Shtogren	23 Aug 57
Col Russell K. Pierce, Jr.	1 Jul 63
Col Ralph G. Suggs	circa 5 Oct 65
Col Robert L. Sorey	27 Jun 66
Col Eugene C. St. Clair	1 Sep 70
Col James H. Gillard	1 Jun 73
Col Berry W. Rowe	7 Feb 74
Col Albert J. Kaehn, Jr.	16 Jui 75
Col Alfred C. Molla, Jr.	2 Aug 78
Col Robert M. Gottuso	1 Jul 80
Col James W. Hall	26 Aug 82
Col Billy L. Moore	7 Jun 83
Col John H. Taylor	31 Jul 86
Col George L. Frederick	22 Jul 88
Col John W. Oliver	22 Jun 90

4TH WEATHER WING Peterson AFB, Colorado

The unit was established 4th Weather Wing 1 June 1959 and activated and assigned to Air Weather Service 8 August 1959. It was inactivated 30 June 1972 and activated 1 October 1983, again under Air Weather Service.

> Assumed Command Col Kenneth A. Linder Col Robert L. Sorey by Col Robert R. Osborn circa Col Richard M. Gill Col Paul E. McAnally Col Lewis J. Neyland Inactive Col Serhij Pilipowskyj Col James K. Lavin Col Gene J. Pfeffer Col Charles H. Tracy

8 Aug 59

5TH WEATHER WING

Langley AFB, Virginia

The unit was established as 5th Weather Wing 17 September 1965 and organized and assigned to Air Weather Service 8 October of that year.

> Assumed Command Col Kenneth A. Linder 8 Oct 65 Col Milton M. Hause 15 Apr 66 Col George E. Rath 8 Jul 66 2 Feb 70 Col Walter A. Keils Col Leonard E. Zapinskí 1 Oct 73 Col Joseph D. Saccone 1 Aug 76 Col Joe R. O'Neil 15 Jul 78 Col Salvatore R. LeMole 18 Jun 81 Col John A. Lasley, Jr. 14 Oct 83 Col John J. Kelly, Jr. 21 Jun 85 Col Ernie R. Dash 24 Jul 87 Col William S. Koenemann 22 Jun 89

7TH WEATHER WING

Scott AFB, Illinois

The unit was established and activated as 7th Weather Wing 17 September 1965 and organized and assigned to Air Weather Service 8 October 1965. Inactivated 30 June 1972, it was activated 1 January 1976, again under Air Weather Service.

	Assumed Command
Col Arthur W. Anderson	8 Oct 65
Col Walton L. Hogan, Sr.	14 Jun 66
Col William H. Best, Jr.	23 Jun 66
Col Douglas C. Purdy	4 Aug 67
Col Robert L. Kane	6 Feb 70
Inactive	30 Jun 72
Col Charles O. Jenista	8 Jan 76
Col David L. Roberts	26 Jul 76
Col Robert W. Fanning	16 Aug 76

Col John J. Elliff Col Thomas L. Harris Col John R. Sweeney Col John W. Diercks Col Thomas O. Proffitt Col John P. Upchurch Col Melvin L. Turner

AIR FORCE GLOBAL WEATHER CENTRAL Offutt AFB, Nebraska

Established as Air Force Global Weather Central 18 March 1969 and activated 8 July 1969. Assigned to the 6th Weather Wing 30 June 1972. It became a direct reporting unit of Air Weather Service 1 August 1975.

Assumed Command

Col Raiph J. Steele	8 Jul 69
Col Daniel B. Mitchell	Jun 70
Col John C. Ball	Jan 73
Col Richard A. Johnston	Feb 73
Col Herbert A. Million	31 Aug 75
Col Alphonse Gargiulo, Jr.	28 May 76
Col Arthur Bidner	15 Jun 78
Col George E. Chapman	22 Jun 81
Col Dale C. Barnum	23 Jul 82
Col David L. Donley	20 Jul 84
Col John W. Kiercks	3 Jul 86
Col Adrian A. Ritchie	7 Jun 89

DEFENSE COURIER SERVICE Fort Meade, Maryland

Formerly Armed Forces Courier Service. Activated 1 October 1987; formal caremony 17 November 1987 at Fort Meade, Maryland. The MAC Commander in Chief serves as executive agent.

1 Oct 87	
28 Jul 89	

Assumed Command

Col Howard L. King Col Chris L. Jefferles

AIRLIFT COMMUNICATIONS DIVISION Scott AFB, Illinois

Established as Flight Control Command 29 March 1943 and activated 3 April 1943. Disestablished 1 October 1943. Reestablished and consolidated with the North Atlantic Communications Region (established as the 66th Airways and Air Communications Service [AACS] Group 14 May 1948 and organized 1 June 1948; redesignated 1805th AACS Group 1 October 1948, 1805th AACS Wing 1 October 1953, North Atlantic AACS Region 1 November 1957, and North Atlantic Communications Region 1 July 1961; discontinued and inactivated 1 July 1963) and the Eastern Communications Region (established and activated 17 December 1962; organized 1 July 1963; inactivated 1 May 1970). Redesignated Airlift Communications Division 10 February 1981 and activated 1 June 1981. Redesignated Airlift Information Systems Division 7 December 1984 and Airlift Communications Division 1 November 1986. Assigned to Headquarters MAC 1 October 1990.

Assumed Command

3 Apr 43 1 Oct 43

Col Samuel R. Harris Inactive

Lt Col G. B. Brock		1 Jun 48
Maj F. M. John		31 Jul 48
Lt Col Casper R. Offringa		9 Aug 48
Lt Col (Col) Milburn B. Andrews	circa	Sep 50
Lt Col (Col) Forrest W. Donkin		8 Jan 52
Col Charles W. Bagstad		15 Mar 53
Lt Col James H. Wear, Jr.		17 Jun 57
Col William E. Geyser		25 Jun 57
Col James T. McElhone		9 Jul 62
Col (Brig Gen) Anthony T. Shtogren		1 Jul 63
Col John E. Fitzgerald, Jr.		26 May 65
Col Robert W. Dickerson		2 Jul 65
Col Hugh C. Moore		14 Jan 66
Col Robert J. Hennessy		30 Jul 67
Col Dean A. Voight		19 Aug 67
Col Robert P. Baumann, Jr.		1 Feb 69
Inactive		1 May 70
Col Ray G. Green, Jr.		1 Jun 81
Col James W. Cowan		16 May 83
Col (Brig Gen) Victor S. Stachelczyk		1 Sep 84
Col (Brig Gen) Dennis C. Beasley		13 Jun 86
Col (Brig Gen) Jerome A. Landry		11 Mar 88
Col Stephen E. Kelley		2 Mar 90

USAF AIRLIFT CENTER Pope AFB, North Carolina

The United States Air Force Tactical Airlift Center was constituted, activated, and assigned to the Tactical Air Command 26 August 1966 and organized 1 September 1966. The unit inactivated 30 June 1971. Redesignated 4 November 1976 as the United States Air Force Airlift Center, the unit activated 1 December 1975 under the Military Airlift Command. From 1 December 1975 to 9 January 1987, the 317th Tactical Airlift Wing Commander was also the USAF Airlift Center Commander.

Col James G. Silliman	1 Sep 66
Col Howard W. Williams	1 Jun 67
Brig Gen Joseph N. Donovan	13 Jun 67
Col Charles W. Borders	31 Jan 70
Col (Brig Gen) William A. Dietrich	27 Feb 70
Col Charles W. Borders	10 Jun 71
Inactive	30 Jun 71
Brig Gen Robert F. Coverdale	1 Dec 75
Col Benjamin N. Kraljev, Jr.	8 Aug 77
Col (Brig Gen) Duane H. Erickson	28 Feb 79
Col (Brig Gen) Robert B. Patterson	29 Mar 80
Col (Brig Gen) Edsel R. Field	27 Feb 81
Col Frank E. Willis	18 Feb 83
Col Rolland F. Clarkson, Jr.	29 Feb 84
Col Ronnie C. Peoples	23 Sep 85
Col John D. Fox	9 Jan 87
Col Thomas A. Linn	28 Mar 90

AIRLIFT OPERATIONS SCHOOL

Scott AFB, Illinois

The unit was constituted as the Military Airlift Command Airlift Operations School 5 July 1978 and activated at Scott AFB, Illinois, 15 July 1978.

	Assumed Command
Col Ronald F. Henderson	1 Sep 78
Lt Col Robert L. Trimpi	1 May 79
Lt Col (Col) Ray D. Reaves	30 Jan 81
Lt Col John A. Johanek II	22 Apr 82
Lt Col Billie R. Carpenter	8 Sep 84
Lt Col Lynn C. Feterle	11 Aug 86
Lt Col John S. Satterthwaite	29 Jul 88

528TH AIR FORCE BAND

Scott AFB, Illinois

Constituted Air Force Band 2 July 1942 and activated 10 July 1942. Redesignated 28th Army Air Forces Band 10 August 1942, 528th Army Band 27 December 1943, 528th Army Air Forces Band 26 February 1944, and 528th Air Force Band 26 September 1947. Inactivated 8 August 1955. Activated 20 January 1960 and organized 8 April 1960.

Assumed Command	
	Jul 42
	9 Feb 43
by	Apr 44
	19 Dec 45
	10 Jun 46
	22 Jul 46
by	Sep 51
	Nov 51
	8 Aug 55
	20 Jan 60
	8 Apr 60
by	Dec 66
by	Dec 73
	31 Aug 75
	17 Jul 78
	15 Jul 80
	7 Jun 81
by	May 86
	Assu by by by by by

APPENDIX IV

COMMAND PERSONNEL, 1941-1991 (Assigned)

Year	Officer	Airmen	Civilian	Total
Dec 41				2,780
Dec 42				39,768
Dec 43	17,337	78,625	unk	93,962
Dec 44	29,665	131,242	66,176	227,083
Dec 45	20,327	56,368	52,187	128,882
Dec 46	8,122	33,968	17,590	59,680
Dec 47	6,952	34,748	7,846	49,546
Dec 48	8.436	40,946	9,995	59,377
Dec 49	8.058	42.051	8,190	58,299
Dec 50	9,134	51,584	8,689	69,407
Dec 51	13,173	68,181	10,443	91,797
Dec 52	13,158	76.079	14,506	103,743
Dec 53	12,142	79.457	12,759	104,358
Dec 54	13.061	80.428	13,955	107,444
Dec 55	13.303	74.637	16,018	103,958
Dec 56	13,166	78,154	18,286	109,606
Dec 57	13.798	89.929	18,555	122,282
Dec 58	14.367	92.925	19.792	127,084
Dec 59	14 151	86.122	19.649	119,922
Dec 60	12,808	77,675	16.933	107,416
Dec 61	12,233	59.440	13,933	85,606
Dec 62	12,066	68.753	14,934	85,753
Dec 63	12,567	62.156	14,901	89.624
Dec 64	13 136	63.096	14.613	90,845
Dec 65	13 393	61.830	14.961	90,184
Dec 66	12,086	66.328	18,196	96,610
Dec 67	12.541	72,638	18.708	103,887
Dec 68	12 766	73.230	20,112	106,108
Dec 199	11,966	63.406	18,727	94,099
Dec 70	11 802	59.626	17.143	88.571
Dec 71	11 863	59,594	17,360	88.817
Dec 72	10,891	54.251	16.291	81.433
Dec 73	9.874	48.714	14,882	73,470
Dec 74	11,666	56.417	15,990	84,073
Dec 75	12.640	69.724	16,700	89,064
Dec 76	12.643	61.812	16.610	91.065
Dec 77	12,322	60.554	17,975	90,851
Dec 78	11.931	60,700	16.989	89,620
Dec 79	11,841	59.403	16.346	87,590
Dec 80	11 976	59.310	16,295	87.581
Dec 81	12 026	80,678	16,380	89.084
Nov 82	12 021	61.547	16.447	90.015
Nov 83	12 685	65 526	16 382	94,573
Dec 84	12,000	65.082	16.395	94,104
Dec 85	12,825	63 371	15 569	91.765
Dec 86	12,819	64 426	15,594	92,839
Nov 87	12,010	64,590	15,656	92.747
Dec 88	12,192	62.139	14,495	88.826
Dec 89	12,007	60.274	15.010	87,291
Dec 90	11,208	68,403	14.382	83,993
	,	,		,

APPENDIX V

COMMAND AIRCRAFT, 1941-1991

(Assigned as of December)

This appendix covers all command assigned aircraft, all missions: air transport, ferrying, special mission support, audio-visual, flight checking, aeromedical, rescue, weather, special operations, and training. Some transport aircraft, especially in the early years performed other missions besides air transport. Also note aircraft designations varied over time.

Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Туре											
A-20				22	3						
A-24				34	7	4					
A-25			16	1							
A-26						3	1				
A-29			10	1			1				_
A-35			4	_							
AT-6			43	43	26	14					
AT-7			6	8	6	5	1				
AT-9			17			_					
AT-11			4	12	13	28	3				
AT-17			17								
AT-21				3							
AT-23						1					
B-17			11	45	47	65	54	47	86	69	63
B-18			21	7							
В-23			1								
B-24	3		24	56	14						
B-25			75	124	103	49	33	25	25	7	1
B-26			24	18				3	5		
B-29						22	71	60	65	98	134
B-34				1							
BC-1			32								
BT-13			37	44							
C-32		12	16	1							
C-39	1	З	5								
C-45					60	63	38	29	33	19	19
C-45(JRB)								1	1	1	
C-46		2	247	695	38	4	8	7	9 ·		
C-47			206	890	673	330	277	243	240	188	178
C-47(R4D)								4	4	4	1
C-48			3	3							
C-49			90	33							
C-50			1								
C-52			1	1							
C-53			44	18							
C-54		21	76	347	620	311	286	77	183	239	201
C-54(R5D)								39	39	35	38
C-56			3	1							

Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
Туре											
C-57			10	1							
C-60*		36	57	21							
C-64						15	7	6	1		
C-69				3	5						
C-73		22	23				10		10	- 10	
C-74	F					1	10	10	10	10	
C-75	5	2	5								
C-78						1	6	7	26	. 25	24
C-84			2	1		r	0	,	20	25	
C-87**		45	83	142	2	1					
C-97		40	00	172	2		3	3	7	38	62
C-98	4	4							,		
C-108				1							
C-109				92							
C-117					7	2					
C-118							1	1	1	1	1
C-118(R6D)											3
C-119											10
C-121								1	10	9	8
C-124										2	13
DB-7				1							
DC-3***	7	185									
F-5					1						
F-9				1							
F-47								1			
F-51								1			
F-61								1			
G-16								3		8	8
H-5								21	44	50	48
H-6									2		
H-19			P	10							2
L-1			7	10	3	2					
1.3			,	3 1							
1_4			19	10	16	7	A	3	1		
1.5			26	12	9	48	36	31	29	A	2
1-13			20	14	y		15	14	40		
18.30			5	11	14		15	14	+0		
LC-126				r L						8	8
OA-9			3	3	1	1	1				
OA-10			4	14	29	33	25	23	27		
OA-12				1							
OA-13			2	1							
0A-14			1								

Year	1941	1942	1943	1 9 44	1945	1946	1 947	1948	1 949	1950	1951
Туре											
OA-16									4		
P-6A					7						
P-38			4	7							
P-39/63			24	15							
P~40			10	16							
P-47 ·			26	16	1						
P-51			4	8	1	4					
PBY-5			1	1	1						
PT-13			1		1						
PT-17			3	6							
PT-18			1								
R-5						16	19			•	
R-6						4					
RO-47				1							
SA-10										19	14
SA-16										26	74
T-6								10	5		
TF-6							1				
T-11								2	1		15
T-11(SNB)									1	2	
T-19								2			
UC-36			4								
UC-40				1							,
UC-43			8	3							
UC-45			4	42							
UC-61			6	38							
UC-64			30	12	10						
UC-67			5		1.					,	
UC-70			1	1					,		
UC-71			2	1							•
UC-72			9								
UC-78			79	127	23						
UC-81			15	1							
UC-102			1								
XC-108					1					,	
YC-108					1					-	,
ZT-7					-			1			
MSC		53								,	
MSC-Trainers	,	68	82	57							
			42								
Total	20	456	1616	3090	1744	1035	900	676	899	862	938

*Includes the C-57 variant for 1942. **Contains the variants LB-30 and B-24 for 1942. ***Primarily the C-47, C-53, and C-84 variants.

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Year	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
Туре										
B-17	45	19	10	4	1					
B-25	54	61	57	54	57	30	3			
B-26	3	6	2	3	3	3				
B-29	134	128	100	72	2					
B-47				1	2	2	2	2	2	1
B-50			18	36	83	89	88	89	_ 63	63
B-57					1	1			1	28
C-45	70	120	96	83	87	64	58	24		
C-47	181	182	208	185	187	141	101	100	84	21
C-47(R4D)	1	1	1							
C-54	243	250	234	203	200	147	80	79	75	57
C~54(R5D)	39	13					_			
C-74	11	11	11	11						
C-82	22	8	1							
C-97	58	52	56	58	57	47	48	48		48
C-117	10	10	1	1	1	1	1	1	1	1
C-118	13	17	35	96	90	90	127	126	123	111
C-118(R6D)	10	32	32	22	21	24				
C-119	7	8	12	12	13	8				
C-121	8	8	9	25	43	40	72	70	70	70
C-123							1	1	1	1
C-124	51	73	150	175	169	319	313	311	299	298
C-124(R7V)		14	22	27	28	28				
C-130							1	16	16	16
C-131			37	41	38	47	50	56	35	34
C-133						5	19	29	44	47
C-135										12
C-140										2
F-51	20	14								
F-80			1	1				'		
F-84		4	6	7	6	8				
F-86		9	9	7	5	5				
F-89			15	28	26	25	27	24	18	12
F-94		13	2							
F-100				6	6	5				
G-15	7									
H-5	41	35	5							
H-13			2	2	2	3	3	2 '	2	2
H-19	20	60	69	99	77	59	37	38	6	62
H-21			5	6	24	17	12	14	4	12
H-43									4	93
L-5	1									
L-16			1							

Year	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
Туре										
L-17				1						
L-20						4	3	3	2	1
L-26				6	8	6				
LC-126	7									
SA-10	7									
SA-16	159	187	150	149	117	101	81	84	22	22
T-6	32	3								
T-11	49	10					_	1		
T-29		4	2		4	7	9	2	· 18	10
T-33	3	24	62	67	70	49	56	64	65	39
T-34		2								
U-3A							12	12	12	13
U-4A							6	4	4	4
VC-137								3	3	3
Total	1306	1378	1420	1488	1428	1375	1210	1202	974	1083

Year	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Туре										
B-47	1									
B-50	62	33	22	7						
B-57	33	19	20	17	16					
С-5								1	21	45
C-9							7	10	12	12
C-47	11	10	8	7	6	3	11	2		
C-54	- 53	53	51	37	12	9	9	3	2	2
C-118	112	104	64	19	22	22	17	16	10	10
C-121	53	10	10	10	4	4				
C-123										
C-124	330	377	375	311	235	165	181	1 7		
C-130	37	82	141	159	164	35				
C-131	29	24	27	25	25	25	15	10	10	10
C-133	46	43	43	40	40	40	39	40	39	
C-135	44	40	39	38	30	23	19	19	19	19
C-140	6	11	11	11	11	11	11	11	11	11
C-141			2	65	164	271	277	277	276	275
C/HH-3			4	12	23	30	41	42	39	50
CH-21	14	10	5	4						
C/HH-53					2	8	10	13	31	43
HC-97			28	27	5		9			
HC-130						59	58	57	72	72
HH-19		24	3							
HH-43	93	142	156	149	148	145	145	139	136	147
HU-16	31	33	34	35	38	23				
KC-97			2	2						
RB-57						21	26	26	25	25
RC-130						16	16	15	11	4
SA-16										
T-29	12	11	11	8	19	19	19	22	14	15
T-33	20	18	10	5	4	4	4	4		
T-39	4	4	4	4	6	7	6	8	11	12
ТН-1										16
U-3	13	13	13	13	16	13	4			1
U-4	4	4	4	4	4	4	2			
U-6	2	1	1	1						
UH-1								2	2	31
UH-19	59									
VC-6				1	1	1	1	1	1	1
VC-137	4	4	4	4	4	4	4	4	4	4
WB-47		33	32	28	25	24	24			
WC-130						14	14	14	21	22
Total	1073	1103	1124	1043	1024	1000	969	753	767	827

Year	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Туре										
C-5	65	77	77	76	77	77	76	76	76	77
C-6	1	1	1	1	1	1	1	1	1	1
C-9	12	12	12	23	23	23	23	23	23	23
C-12					2	2	4	4	6	5
C-54	1						_			
C-118	11	4	2							
C-130			231	267	275	276	267	272	267	259
C-131	10	10	9	4	4					
C-135	13	13	12	16	16	11	11	11	12	13
C-137	5	5	5	5	5	5	5	5	5	5
C-140	11	11	11	11	11	11	11	11	11	11
C-141	276	276	275	273	271	271	270	270	269	270
C/HH-3	43	41	38	46	45	44	43	42	45	46
C/HH-53	40	34	33	33	32	32	32			
HC-130	62	58	47	36	31	30	30	28	28	28
HH-1		24	11	11	11	11	11	12	22	22
HH-43	106	21	14	2						
HH-53								33	21	21
RC-130	Б	5	3							
T-29	14	17	12							
T-39	12	11	11	105	103	107	114	114	113	113
T/UH-1	50	101	92	85	90	90	91	87	76	76
WB-57	14	11								
WC-130	22	18	19	14	15	14	14	13	13	13
Total	773	750	915	1008	1012	1005	1003	1002	988	983

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Year	1982	1983	1984	1985	1986	1987	1988	1989	1990
Туре									
AC-130		10	10	10	10	10	10	10	10
C-5	77	77	77	69	78	77	80	83	83
C-6	1	1	1						
C-9	23	23	23	23	23	23	23	23	23
C-12	5	1	40	42	42	42	42	41	41
C-20		3	3	3	3	13	13	13	13
C-21			36	79	79	78	78	78	78
C-22			1	1	1	1	1	1	1
C-23			3	18	18	18	18	18	
C-29									5
C-130	257	255	254	252	250	249	248	218	217
C-135	13	13	14	14	14	13	13	12	12
C-137	5	5	5	5	Б	5	6	6	7
C-140	11	11	8	8	8	5	5	3	
C-141	268	268	267	267	259	251	251	250	250
C/HH-3	46	47	49	49	49	43	34	32	26
C/HH-53	21	30	28	27	32	26	32		4
HC-130	28	27	27	25	31	31	29	29	31
HH-1	22	22	22	22	22	18	15	20	20
MC-130		14	14	14	14	14	14	14	14
M/HH-53								37	34
M/UH-60								20	17
T-39	11 2	112	56			2	2	2	
T-43							1	1	1
T/UH-1	75	84	81	81	79	60	52	55	55
UH-60	5	9	10	10	10	10	22		10
VC-25									1
WC-130	13	13	13	13	13	8	8	8	8
Total	982	1025	1042	1032	1040	997	997	974	961

GLOSSARY

AAC	Alaskan Air Command
AACS	Army Airways Communications System
AAF	Army Air Forces, Army Air Field
AAFWS	AAF Weather Service
AB	Air Base
ACFC	Air Corps Ferrying Command
AE	Aeromedical Evacuation
AFB	Air Force Base
AFCC	Air Force Combat Command; Air Force Communications Command
AFSOC	Air Force Special Operations Command
ALCC	Airlift Control Center
ALCE	Airlift Control Element
AMST	Advanced Medium STOL Transport
APOE	Aerial Ports of Embarkation
ARRS	Aerospace Rescue and Recovery Service
ARS	Air Rescue Service
ASIF	Airlift Service Industrial Fund
ATC	Air Transport Command
ATFERO	Atlantic Ferrying Organization (British)
ATS	Air Transport Service
AWS	Air Weather Service
CARP	Computed Air Release Point
CATF	Combined Airlift Task Force
CBI	China-Burma-India
CDS	Container Delivery System
CHECO	Contemporary Historical Evaluation of Current Operations
CINCLANT	Commander in Chief Atlantic
CMMS	Congressionally Mandated Mobility Study
CNAC	China National Aviation Corporation
CONUS	Continental United States
CRAF	Civil Reserve Air Fleet
DATA	Defense Air Transportation Administration
DOD	Department of Defense
DOE	Department of Energy
EASTAF	Eastern Transport Air Force
FAA	Federal Aviation Agency (later, Administration)
FEAF	Far East Air Forces
FY	Fiscal Year
GHQ	General Headquarters
GPES	Ground Proximity Extraction System
HTTU	Heavy Transport Training Unit
ICD	India China Division
INF	Intermediate-Range Nuclear Forces
ISO	Isochronal
JANAIC	Joint Army-Navy Air Transport Committee
JCS	Joint Chiefs of Statt
KAA O	Hanna Million Andrean Const-
KMAG	Korean Military Assistance Group

LAPES	Low-Altitude Parachute Extraction System
MAC	Military Airlift Command
MACV	Military Assistance Command, Vietnam
MAGTE	Marine Ground Task Force
MAICOM	Maior Command
MAT	Militany Air Transport
	Military Air Transport
	Military Air Transport Service
	Marial - Respective Chin
MPS	
MTM/D	Million Ion-Miles per Day
MTTU	Medium Transport Training Unit
NATO	North Atlantic Treaty Organization
NATS	Naval Air Transport Service
NVG	Night Vision Goggles
OCR	Operations, Commitments, and Requirements
OSIA	On-Site Inspection Agency
PACAF	Pacific Air Forces
PACOM	Pacific Air Command
PLM	Production Line Maintenance
POMCUS	Prepositioned Materiel Configured for Unit Sets
POW	Prisoner of War
R&R	Rest and Recuperation
RAF	Roval Air Force
BO/BO	Boll-On/Boll-Off
RWRW	Rescue and Weather Reconnaissance Wing
SAC	Strategic Air Command
50	Special Operations
SOF	Special Operations Forces
SOLI	Special Operations Low Level
STOL	Short Take-Off and Landing
TAC	Tactical Air Command
TACS	Tactical Air Control Systems
	Table ner Dev
тот	Time Over Target
UN	United Nations
LISAAF	United States Army Air Forces
	United States Air Force
	United States Air Forces in Europa
USAFE	United States Air Forces in Europe
USAFSU	United States Air Forces Southern Command
USASTAF	United States Army Strategic Air Forces in the Pacific
USSUCOM	United States Special Operations Command
USSR	Union of Soviet Socialist Republics
USSTAF	United States Strategic Air Forces in Europe
USTRANSCOM	United States Transportation Command
VNAF	Vietnamese Air Force
WAFS	Women's Auxiliary Ferrying Squadron
WASP	Women Airforce Service Pilots
WESTAF	Western Transport Air Force

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