

At the time, the Globemaster II crash near Tokyo was the worst air disaster in history.

C-124 and the Tragedy at Tachikawa

By Walter J. Boyne



The vertical stabilizer was ripped off C-124 No. 51-137 when the aircraft hit the ground near Tachikawa AB, Japan.



On June 18, 1953, a Douglas C-124A transport of the 374th Troop Carrier Group prepared for take-off from the runway at Tachikawa AB, Japan. Maj. Herbert G. Voruz Jr. was the aircraft commander. At age 37, Voruz had flown more than 6,000 hours. His pilot was Maj. Robert D. McCorkle, also an experienced pilot. Another pilot, Maj. Paul E. Kennedy, was on board to log flying time.

As the Globemaster II taxied out for the pretakeoff checklist, maintenance personnel watched it with some anxiety. In recent weeks almost half of the big transports had taxied back in after their engine run-ups encountered some discrepancy—too large a magneto drop or electrical problems with the generator.

The weather report indicated low clouds and a 2.5-mile visibility.

Approximately three minutes later the aircraft crashed, killing all 129 aboard, including the seven-man crew. At the time, the crash of C-124 No. 51-137 was—by far—the deadliest air disaster in history.

Most of those killed were airmen who had just enjoyed a five-day rest and recreation leave in Japan and were reluctantly returning to their duty assignments in South Korea.

The accident immediately raised an alarm about the safety of the huge four-

engine transport, calling into question many elements of its design and equipment.

Although officially the Globemaster II, the C-124 was unofficially and affectionately called “Old Shaky” because of its vibrating, rumbling passage through the air. In 1953, no one could have forecast its 25-year workhorse career from its introduction in 1949 to its retirement in 1974.

Over time it came to be considered reliable, if slow. The C-124’s principal value resided in its unique ability to carry large size cargo intact, without requiring disassembly. Later jet transports, such as Lockheed’s C-141 Starlifter and C-5 Galaxy and the Boeing C-17 Globemaster III, had this capability designed in, but in its day, the C-124 was unique.

The Search for a New Transport

Air Force logisticians had learned from World War II and the Berlin Airlift experience that while the ability to carry heavy loads was important, it also was vital to have a long range and a large cubic capacity. The first aircraft intended to fulfill this need was the Douglas C-74 Globemaster, first flown in September 1945.

While similar in layout and appearance, the Globemaster was a far more

US military personnel stand amid wreckage after a search for human remains. Globemaster II aircraft had early problems but ultimately proved to be reliable workhorses for the Air Force.

sophisticated aircraft than the classic Douglas C-54 it was intended to replace. The C-74’s airfoil was under-cambered aft of the wing’s rear spar. This was a great benefit at low speed but resulted in excess drag above 300 mph. It also introduced an elevator aft of the wing for loading cargo, with two overhead hoists on a rail to facilitate storage. Four Pratt & Whitney R-4360 engines of 3,200 horsepower powered the C-74.

The Air Force quickly recognized, however, that the C-74 was inadequate for bulky cargo. Ultimately, of the 50 originally ordered, only 14 were built. The fifth example became the prototype for the C-124 and made its first flight on Nov. 27, 1949.

Douglas built the new aircraft with basically the same wings, power plants, and tail as the C-74, but enlarged the fuselage and greatly strengthened the landing gear to handle up to 74,000-pound loads.

The fuselage ballooned into two-decks, allowing wheeled vehicles to roll inside via its clamshell doors and hydraulically operated ramps. Even large units such



as tanks, helicopters, and bulldozers could be loaded without disassembly. The cargo bay had two overhead hoists, each with a capacity of 8,000 pounds, and like the C-74, there was an electrically operated elevator in the aft part of the fuselage.

With a combat radius greater than 1,000 miles, the C-124 could transport troops and cargo to distant bases and return without refueling. With the proper engine settings, endurance could be greatly extended. In one search and rescue mission for a downed Boeing C-97 aircraft, for example, a C-124 flew for 22 hours.

There were many teething problems. On May 23, 1951, a C-124 flown on an experimental flight by a crew from Wright-Patterson AFB, Ohio, crashed near New Castle, Ind., after its propellers reversed in flight. Seven of the 12 men aboard died.

Additional deficiencies occurred with fuel tanks, generators, anti-icing system, brakes, and instrumentation. The big 28-cylinder Pratt & Whitney R-4360 engines also were in their introductory

phase. They had their own portfolio of problems, of which fire was the most dangerous.

Strategic Air Command was the first command to operate the C-124, using 50 of them in four strategic support squadrons from 1950 to 1962. They were absolutely vital to SAC's overseas deployments, carrying weapons and personnel in advance of the arrival of B-50 and B-47 bombers at foreign bases.

Tactical Air Command also employed the C-124, but the Globemaster II soon established itself as the primary transport in the Military Air Transport Service (MATS). It made resupply missions to Antarctica and supported relief operations around the world when natural disasters occurred.

The Army was gratified to have the C-124 at its disposal to transport the Strategic Army Corps with its infantry and airborne divisions. The Army found the C-124 suitable for parachute operations, as it could carry 112 paratroopers.

When the missile age arrived in the 1960s, the C-124 was used to transport Redstone and Jupiter missiles built in Huntsville, Ala., to Cape Canaveral, Fla. The Free World's first satellite, the Explorer I, made its first ascent into the air in a C-124, and Able and

Baker, the famous space monkeys, also moved around the country on flights in a Globemaster II.

The C-124 quickly encircled the globe with routes to every continent. And as was the custom of the time, the effectiveness of the aircraft was supported on the backs of the personnel crewing and maintaining what they sometimes called "a million rivets flying in formation."

Globemaster II aircrews generally liked the airplane, although it was demanding to fly in weather. Many pilots recall that it had the "usual solid Douglas feel" and that airspeed changes required appreciable elevator trim. Climb rates were low when heavily loaded or when operating from high altitudes. Because of their extremely high drag, setting the flaps required special attention in emergency situations.

The nature of the C-124's global supply mission made it difficult to maintain the aircraft at distant bases. Most trips involved daily crew duty time of 12 to 15 hours, with 12 hours' crew rest. Trips were typically three to seven days in length, but many of these became extended. One day of crew rest was prescribed for each three days away—up to a total of three days off.

Above, C-124 No. 51-137 in front of the maintenance hangar at Tachikawa before the accident that killed 136 US service members.

Of the myriad possible itineraries, a typical flight might be a takeoff from Donaldson AFB, S.C., to Hickam AFB, Hawaii, and return with a stop at Travis AFB, Calif., on each leg. Another regular trip was from Donaldson to Rhein-Main Air Base in Frankfurt, Germany, continuing on to Wheelus AB, Tripoli, then to Lajes Air Base in the Azores, with Dover AFB, Del., as the final destination.

Overall, most of the trips were routine, but some were exotic, as in 1960, when a C-124 evacuating Belgian troops from Leopoldville in the Belgian Congo was attacked by spear-throwing native tribesmen.

Crews were sometimes deployed to an overseas location for six-month periods and were then assigned to flights everywhere in that theater. Pilots became accustomed to flying in bad weather using primitive instrument letdown procedures to bases with short runways. Flight engineers became proficient in making major repairs at bases with no facilities to help and usually maintained a “stash” of the parts most likely to be needed.

Although no one ever admitted it, any flight engineer worth his salt would be able to discover a mysterious engine malady calling for an extra day’s delay in places such as Hawaii.

The \$1.7 million per copy C-124 was soon recognized for its economy of operation when figured on a cost per ton-mile basis. By the time the purchases were complete, the Air Force procured 204 C-124As and 243 C-124Cs.

The C-124A used the 3,500 horsepower R4360-20WA engine in which the gear driven superchargers were governed by an Automatic Engine Control (AEC) unit. It automatically shifted the supercharger from low to high blower, based on altitude and throttle settings. This sometimes caused unwanted power changes on takeoff or climb out from high elevation airports. On the C-124C’s 3,800 horsepower R4360-63A engines, the flight engineer manually controlled the blower selection.

All C-124s had a large Janitrol combustion heater located in the tail cone to provide heat for the tail surface anti-icing and for cabin heating. The C-124C had

Janitrol heaters installed in streamlined pods on each wingtip for wing anti-icing. It was critically important to initiate anti-icing procedures before entering icing conditions. The C model also had an APS-42 weather radar mounted in a nose-dome housing. Most C-124As were later brought up to C-124C standards.

Tachikawa, June 18, 1953

Robert Conley was a young airman first class on that hot, cloudy June 18th at Tachikawa and made careful notes on the event. Now 81, he recalls the original aircraft 51-146 assigned for the mission was scratched for engine problems and the mission transferred to the ill-fated standby aircraft.

Conley remembers watching the usual boarding drill, with the passengers assembled in loose formation with a variety of carry-on luggage. When they were

mustered aboard, they filled all of the upper deck’s bucket seats and those on the right side of the main deck. Conley went on board to service the IFF (Identification Friend or Foe) equipment and noticed the experienced crew was in good spirits, especially the two pilots.

From the tower, A2C Volney L. Smith radioed that the mission aircraft was cleared to its destination: K-55, Osan AB, South Korea. Voruz, the aircraft commander, pushed the throttles forward and the big C-124 lumbered down the runway. It was airborne at exactly 4:31 p.m., climbing into the overcast.

About one minute after takeoff, in a left turn to the outbound course, the

UN troops wait to board a C-124 at a US air base in South Korea during the Korean War. C-124s transported military members for R&R in Japan and back.



Photo via Air and Space Museum

C-124s transported POWs from North Korea, to Japan, and ultimately home to the United States during Operation Little Switch, shown at left.



member, A1C Carl C. Steele, was found in the small compartment behind the No. 1 engine. He apparently had gone through the narrow wing passageway to check on the fire.

An excerpt from the accident report indicates that a combination of airspeed and flap setting errors led to a loss of control, causing the crash.

The grievous effect of the crash on the victims, their families, and the Air Force was immense. Although the crash has largely been forgotten today, it is memorialized at the site by a small monument erected by the citizens of a nearby village.

This was the first aircraft crash in which more than 100 people were killed, so there was an unusual flurry of publicity around the world. Yet it also occurred at a time when aircraft accidents were so common that not much more was made of the tragedy.

In 1953, Maj. Gen. Victor E. Brandias, Air Force deputy inspector general for technical inspection and flight safety research, reported that in 1951 and 1952 alone, there were a total of 107 cargo-type aircraft destroyed—about one per week during that period. The human loss was terrible, with 685 personnel killed in the scores of accidents.

Despite its “Old Shaky” moniker and the negative publicity arising from the Tachikawa disaster, the C-124 was never regarded as a particularly dangerous aircraft during its long operational life. Nonetheless, 62 of the 447 built were destroyed in use, a loss rate of approximately 14 percent. A total of 589 personnel were killed in these Globemaster II accidents.

Times changed, and Air Force safety records steadily improved over the years and decades after the crash. The C-124 was not just an indispensable aircraft for its time, it essentially set the capacity requirements for future airlifter designs, and today’s workhorse C-17 continues the C-124’s lineage by carrying the Globemaster III name. ■

No. 1 engine burst into flames. Voruz called that he had just shut down an engine and was returning to Tachikawa. Asked if he wanted a ground controlled approach (GCA), Voruz replied, “That is affirmative” and was heard to yell, “Give me more power” to his flight engineer. When ground control asked if he could maintain his altitude Voruz said, “Roger.”

Ground control asked if the aircraft was declaring an emergency, but there was no answer.

Radar contact was lost at a point 3.25 miles east northeast of the field.

The C-124 crashed into the earth in a slight nose-down attitude, burying itself in the soft earth near the village of Kodaira and killing almost everyone aboard instantly. The wreckage was smeared across a watermelon farm next to a busy highway that led to Tokyo.

SSgt. Robert D. Vess was driving from Tokyo with his wife when he saw the crash. He stopped and ran through a clump of trees to pull the radio operator, A2C John H. Jordan Jr.—alive—from the twisted aluminum. Sadly, Jordan died in the next few minutes. Vess, who was later decorated for his heroism, continued the search for survivors with

others for another 30 minutes until the mishap aircraft’s fuel tanks exploded. Some of the ground rescue personnel on the scene reported that the engines on the right wing had continued running after the crash.

At 4:50 p.m., Tachikawa GCA called the 36th Air Rescue Squadron at Johnson AB, Japan, some 11 miles north. A Sikorsky H-19, flown by Lt. Col. Theodore P. Tatum Jr., a co-pilot, and a two-man pararescue team was dispatched. They arrived at 5:13 p.m. and landed about 150 feet from the wreckage. Their inspection confirmed there were no survivors.

Both the base and local fire departments arrived within minutes, managing to save the crew compartment from destruction by fire. Chaplains and an identification team were dispatched. Working under floodlights, a temporary morgue was set up as the victims were recovered from the wreckage. One crew

Walter J. Boyne, former director of the National Air and Space Museum in Washington, is a retired Air Force colonel and author. He has written more than 600 articles about aviation topics and 40 books, the most recent of which is How the Helicopter Changed Modern Warfare. His most recent article for Air Force Magazine, “The B-47’s Deadly Dominance,” appeared in the February issue.