LW2 Old Shaky: The C-124 Globemaster

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Learning Overview: After attending this presentation, attendees will understand the role of the C-124 Globemaster in the aviation history of the United States military and its involvement in a number of mass disasters.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by detailing the history of the C-124 Globemaster.

Back in the day, the C-124 Globemaster was the largest military transport ever manufactured. The plane had two decks and could carry 200 fully equipped soldiers or serve as a hospital transport for 124 patients on liters along with their attending staff. As a cargo hauler, it could carry tanks, guns, trucks, and other heavy equipment. It was the only aircraft of its time capable of transporting heavy equipment, such as tanks and bulldozers, without disassembling the equipment.

The plane did not see any service in World War II but was developed from a prototype of the World War II-era Douglas C-74 Globemaster and from lessons learned during the Berlin Airlift. The C-124's design featured two large clamshell doors and a hydraulically actuated ramp in the nose, as well as a cargo elevator under the aft fuselage.

The first deliveries of the Globemaster began in May 1950 and continued until 1955 with a total of 448 aircraft. The C-124 was operational during the Korean War and was also used to assist supply operations for Operation Deep Freeze in Antarctica. The aircraft performed heavy lift cargo operations for the United States military worldwide, including flights to Southeast Asia, Africa, and elsewhere. From 1959 to 1961, they transported Thor missiles across the Atlantic to England. The C-124 was also used extensively during the Vietnam War transporting materiel from the United States to Vietnam. Until the C-5A became operational, the C-124, and its sister, the turboprop C-133 Cargomaster, were the only aircraft available that could transport very large loads.

The plane was powered by four Pratt & Whitney piston engines-rated at 3,800hp that could push it through the air at a speed of 320mph, at a range of almost 2,200 miles. It could carry 216,000lbs., maximum.

"Old Shaky's" name derived from the large Pratt & Whitney piston engines, which had cylinders the size of coffee cans. The noisy conglomeration of connecting rods, push rods, and pistons made for a deafening roar and a shaky plane ride.

The Pratt & Whitney R-4360 Wasp Major was the largest mass-produced aircraft piston engine ever made. It was a 28-cylinder, 71-liter, 56 sparkplug, air-cooled radial monster. It was initially supercharged. The final evolution of the Wasp Major incorporated a turbocharger as well.

The plane was involved in several noteworthy accidents. In 1951, a Globemaster ditched in the Atlantic Ocean off of Ireland due to a cargo fire. Initially, a search plane spotted men in life rafts, but when rescue vessels arrived on scene, no survivors or rafts were found.

In November 1952, a C-124A that left McChord Air Force Base in Washington state crashed into the Colony Glacier on Mount Garrett, some 40 miles east of Anchorage, AK. All 41 passengers and 11 crew members were lost. Sixty years later, debris from the plane and remains of some of the victims were found by the Alaska National Guard on June 10, 2012, having apparently been uncovered due to the receding of the glacier. By 2014, remains of 17 victims had been recovered and identified by the Defense POW/MIA Accounting Agency (DPAA).

On June 18, 1953, a Globemaster took off from Tachikawa Air Base in Japan. Shortly after takeoff, one of the engines failed, forcing the pilot to make an emergency landing. Due to a loss of airspeed, the pilot lost control and crashed into a melon patch, killing all 7 crew members and 122 passengers. At the time, these 129 fatalities constituted the worst accident in aviation history and would not be exceeded until a midair crash over New York City in 1960.

Aviation, Globemaster, Mass Disaster