Use of the Fieseler "Stork" in World War II Aeromedical Evacuation

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The STOL Fieseler Fi 156 *Storch* ("Stork") was widely used in the *Luftwaffe* (German Air Force) in World War II. Initially conceived as a transportation and observation aircraft, it was also used for aeromedical evacuation missions. The *Luftwaffe* became the third branch of the *Wehrmacht* (Armed Forces) with its own independent medical service beginning in 1935. The goal was to inaugurate an aeromedical evacuation system to transport seriously wounded personnel quickly from any military theater to specialized medical facilities or back to Germany. During World War II, 2.5 million casualties were transported by regular troop carriers and the specialized *Luftwaffe* aeromedical evacuation units. These so called *Sanitaetsflugbereitschaften* were equipped with Junkers Ju-52s, which could carry up to 12 patients on litters, and the Fieseler Fi 156 for up to 2 patients on litters. The *Luftwaffe* aeromedical evacuation units were completely self-sufficient. They were commanded by flight surgeons who were also pilots. The units were composed of 30 to 140 personnel, ambulances, trucks, and usually three Ju-52s and two Fi 156s. The use of standardized litters eased the transport of patients in the ambulances, the air evacuation Fi 156s, and the Ju-52s. There was an increased need for aeromedical evacuation units after Germany invaded Poland in September 1939. Ground transport of the sick and wounded in ambulances was hampered during the invasion by military traffic congestion. This led to the demand for the use of the aeromedical evacuation units. Subsequently, air evacuation "feeder" aircraft were introduced. The aeromedical evacuation Stork had already proved its value in the harsh Scandinavian conditions early in the war during 1940. The Stork greatly improved the care in the field hospitals as urgently needed drugs and medical supplies could be quickly supplied, as well as vaccines, sanitary equipment, laundry equipment, food, etc.[1–3] Specialists could be transported quickly and seriously wounded patients evacuated to the most appropriate medical facility. Patients requiring brain surgery especially profited from the relatively gentle air transport.

The Stork had a wingspan of 14.27 m (47 ft), a length of 9.90 m (32 ft) and a maximum takeoff weight of 1320 kg (2900 lb) with an empty weight of 930 kg (2050 lb) (**Fig. 1**). Due to its short-take-off-and-landing capability combined with an excellent ground clearance it was preferred to be used for transport in difficult terrain. It could be flown as slow as 50 kph (31 mph), headwind take off was possible within 50 m (165 ft) and landings within 20 m (65 ft). The Stork could be equipped with skids for use in snow (**Fig. 2**). The Argus A510C V8 engine delivered 240 hp and provided a top speed of 175 kph (110 mph) at sea level and a ceiling attitude of 4600 m (15,000 ft). Its operational range was over 375 km (215 mi).

In Poland (1939) about 10% of the wounded who needed evacuation from the theater were transported by plane. From September 18 until October 16, 1939, 2568 patients were medically evacuated by air. High speed penetration deep into hostile territory made it necessary to quickly return seriously wounded patients, especially those with head injuries. During the invasion of France, the number of those air evacuated actually doubled. In Norway in 1940, the aeromedical evacuation feeder service, especially for patients with brain injury, was first established with the Stork. This plane was of great benefit for the treatment of wounded in the early years of the war. Aeromedical Evacuation Unit #7 transported over 10,000 patients from August 1942 until January 1943 from North Africa using Ju-52s. Fuel shortage hampered the use of the Fi 156. Therefore the Aeromedical Evacuation Ju-52s had to transport fuel on their way back to North Africa from the north. From April 4, 1943, to July 31, 1944, the Aeromedical Evacuation Unit #7 flew 400 missions, and 3500 patients, 75% of them stretcher-patients, were evacuated by air. Most of them were transported by the Ju-52s, demonstrating that it was the workhorse of the Luftwaffe aeromedical evacuation system. The aeromedical evacuation numbers for Russia were even higher and the Stork proved its reliability in the feeder service. Pilots were often paramedics. As the Red Cross planes were good targets in most theaters, they were often shot down throughout the war.

Fig. 1. Ambulance and aeromedical evacuation Fieseler Fi 156 "Storch". Photography archive Viktor Harsch.

A tremendous psychological effect on the troops was the knowledge that even in the case of a brain injury they could be evacuated by air to the best appropriate medical facility in the theater and back home in Germany. The advertisement by Fieseler

From Neubrandenburg, Germany.

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AEROSPACE MEDICINE HISTORY, *continued*

Fig. 2. Aeromedical evacuation Fieseler Fi 156 "Storch" in winter operation. Photography archive Viktor Harsch.

Fig. 3. The Life-Saver Stork. Advertisement of Gerhard Fieseler Company, Kassel, Germany. In: Harsch, 2005, 28. Photograph provided by Peter Hulansky, Gerbrunn.

Company for the "lifesaver" Stork emphasized this psychological effect (**Fig. 3**). The German text stated:

A field hospital. The severely wounded soldier X needs an operation in Germany as soon as possible. Therefore the transport will take place by plane. As there is no airfield in the vicinity, the Fieseler Stork has to master the challenge again. The Stork lands between the tents, the stretcher with the wounded disappears into the spacious cabin and almost from the same spot the machine rises into the air. This time, the Stork must show that he can also fly fast as well. The mission is accomplished and the operation is successful. The Stork is a creation of Gerhard Fieseler Company in Kassel.

During World War II millions of stabilized patients were evacuated by plane. Experiences on both the Allied and the German side influenced the future NATO aeromedical evacuation procedures. The development of the helicopter eventually filled the gap for forward air evacuation of wounded.

REFERENCES

1. Harsch V. Die Sanitätsflugbereitschaften der Luftwaffe (1939–1945). Ein Beitrag zu den Anfängen des Luftransportes Kranker und Verwundeter in Deutschland (Aeromedical Evacuation by the Sanitaetsflugbereitschaften der Lauftwaffe). Neubrandenburg: Rethra Verlag; 2005.
2. Harsch V. Aeromedical evacuation in the "Luftwaffe" from its origins until 1945. Aviat Space Environ Med. 2006; 77(1):73–76.
3. Harsch V. Die Sanitätsflugbereitschaften der Luftwaffe (1939–1945). Wehrmed. Mschr. 2007; 51:47–55.