

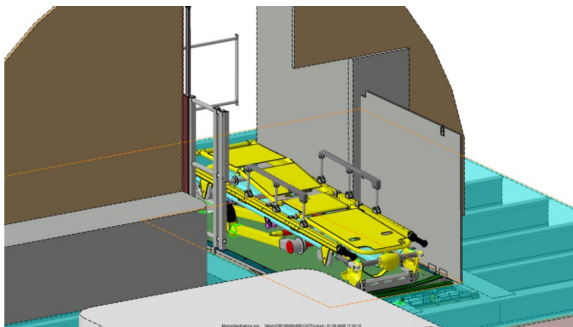


Upper Deck closed Guard Rails

UPPER DECK SAFETY GUARD RAIL

During operation, the upper Deck Floor panel need to be opened by an large Floor Flap. This is specially under rough flight condition an enhanced risk for passengers standing around this opening.

A special designed Guard Rail system integrated in this Floor Flap allows an adequate safety of passenger involved in the patient evacuation procedure as long the Elevator is in use.



Upper Deck opened Guard Rails



Patient Elevator B747-400



Aersolution GmbH
Industriezone Schächenwald
CH-6460 Altdorf
Switzerland

Telefon: +41 41 874 08 90
Fax: +41 41 874 08 99
E-Mail: info@aersolution.com

www.aersolution.com



Project Facts Sheet

Boeing B747-400 Patient Elevator

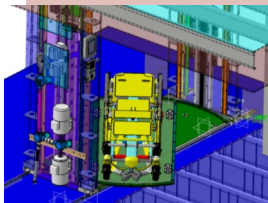


Tel.: +41 41 874 08 90



Technical Specification

The goal of this Project was the design, development, production and certification of a Patient Transportation Elevator installed in a Boeing B747-400. For the Elevator, the existing stair cut out has been used as location for the Lift shaft.



Platform on main Deck

For the Elevator, the existing stair cut out has been used as location for the Lift shaft.

The tough customer requirements regarding usage of space, usability in flight, use of the system under stress situation, loading and unloading of a patient on a wheeled stretcher cot or on a wheel chair as well as the several security and backup features has been solved in a unique design and integration deepness within the existing aircraft and without major changes to its structure.

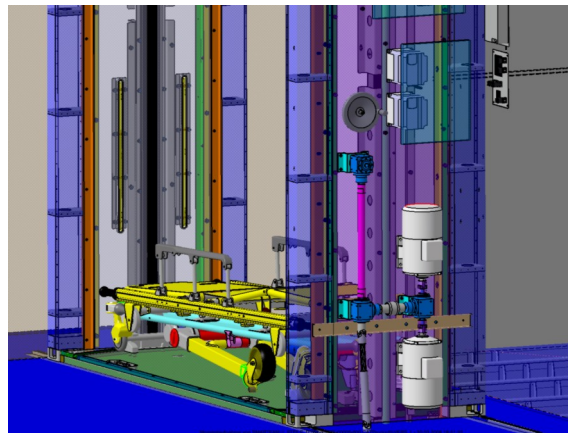
Key figures of the System are:

- ✓ SPS Computer for Operation control,
- ✓ Graphic user Interface with Touch Screen,
- ✓ Operator Intercom System,
- ✓ Electrical and Manual backup drive System,
- ✓ Safety Guard Rail in the Upper Deck,
- ✓ Automatic position alignment,
- ✓ DO160 proved / FAA certified
- ✓

GENERAL

The Medical Elevator has been designed for usage in flight and on ground. The relative high gust loads requires a very solid structure of the carrying platform, specially as the total payload of the platform is rated for 200kg. The Patient Elevator provides space for one patient on a stretcher cot or on a wheel chair.

Due to the fact, that this system will only used in emergency cases, and up to this case the System is closely invisible, a good guidance system was ask for supporting the operator during preparation of the system for use and in use.



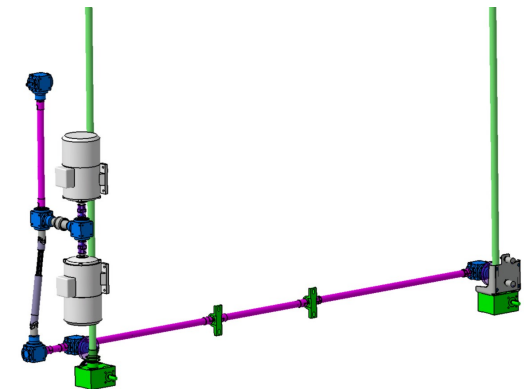
FWD View: Lift Guides with cover Panels and Platform

A failure control logic with several sensors installed in the aircraft, controlled by an SPS Controller, a graphic user interface touch screen and a voice activated intercom system supports the operator in the handling of the Elevator System in stressful medical care situation.

PATIENT ELEVATOR STRUCTURE

The Medical Elevator is guided in four guide Rails on each corner and rolls with Rubber wheels within this guidance. The Platform itself is made of a heavy duty Honeycomb

Panel and provides a tunable top for the Stretcher Retaining System and Wheel Chair attachment hard Points . The Platform can be completely lowered to the basic floor panel due the drive system is installed on the head ends of the platform using the space in between the existing floor beams. This allow a easy loading and unloading with a wheeled stretcher to the medical care room or to the main exit path.



Drive System Assembly

DRIVE SYSTEM

The electrical drive system is located on the AFT of the Patient Elevator and allows access to the engines and manual Drive actuation system in case of lost of power or in case of double motor failure.

Several Sensors crosscheck each action of the operator to it's correct fulfillment and indicates uncontrolled situations / positions on a touch screen.



Lower Interface