



DEPARTMENT OF AUTOMOTIVE AND AERONAUTICAL ENGINEERING

Business Opportunities in Aircraft Cabin Conversion and Refurbishing

Project

Background

The life of an aircraft cabin is not static. Cabins are redesigned, refurbished and converted (Pax-to-Freighter, Pax-to-VIP, Pax-to-Pax). For this reason, business opportunities exist around cabin related activities. Even in a climate of economic downturn, the cabin market is quite strong and is expected to grow. A change of important economic factors requires airlines to adapt. Without available money to buy new aircrafts, the need to convert the fleet and to bring old aircrafts to new tasks is vital. A completion center is an organization that deals with cabin conversion and refurbishing, starting from a customer request up to delivery. Some completion centers handle the conversion of smaller aircraft types in an autonomous way. A few big companies in the field also handle conversions of large passenger aircrafts from Airbus or Boeing autonomously. Engineering offices have traditionally supported the aircraft manufacturers in selected cabin design activities under the aircraft manufacturer's guidance. The future, however, seems to belong to companies who are independent and approved design organizations, capable of offering work packages along the entire process chain for a complete cabin conversion.

Task

Analyze the demand for cabin conversion of large and small aeroplanes (CS-23 and CS-25) and predict a market volume for a hypothetical engineering office, establishing itself as a Completion Centre.

The task consists of these sub tasks:

- Investigation of aircraft data (manufacturer, aircraft family/class/model, age of aircraft).
- Deduction of criteria which are relevant for cabin conversion (conversion cycles, conversion scenario like: Pax-to-Freighter, Pax-to-VIP, Pax-to-Pax, small/large aircrafts, extend of the conversion).
- Forecast of the market volume.
- Investigation of companies offering cabin conversion and classification of these companies: position inside the process chain, aircraft types, type of conversion.

A systematic approach to the topic should be applied. Data should be collected with an appropriate software tool. All relevant sources of information should be considered ranging from libraries, internet resources, aviation statistics institutes as well as all relevant companies in the field.

The report has to be written in English based on German or international standards on report writing.