

Design requirements for new food delivery and waste collection system onboard commercial transport aircraft

ABSTRACT

The objective of this paper is to identify the driving needs for an improved food delivery and waste collection system to be implemented onboard of the commercial passenger transport aircraft. Quality Function Deployment (QFD) method has been applied to establish the design requirements from the point of view of the passengers and airlines. The collected data from conducted public survey and also interview sessions with the experts from the airlines are utilized to construct the House of Quality (HOQ). In short, it has been found that safety and cleanliness are the two top prioritized design requirements for a new food delivery and waste collection system. On the other hand, the type of carriage, overall profile of the system and also the operating mechanism used for the system are top technical design parameters that can influence the successful achievement of the design requirements. Findings from this study will be further utilized to generate design options for the improved food delivery and waste collection system.

Keyword: House of quality; Quality function deployment; Inflight food delivery; Commercial aircraft; Waste collection