Proposed Equivalent Safety Finding on CS 25.807(a) - 25.813(c) –– Emergency Exits Access

Applicable to Learjet 45 – STC Ambulance Version

Introductory note:

The following Equivalent Safety Finding (ESF) has been classified as an important ESF and as such shall be subject to public consultation, in accordance with EASA Management Board decision 12/2007 dated 11 September 2007, Article 3 (2.) of which states:

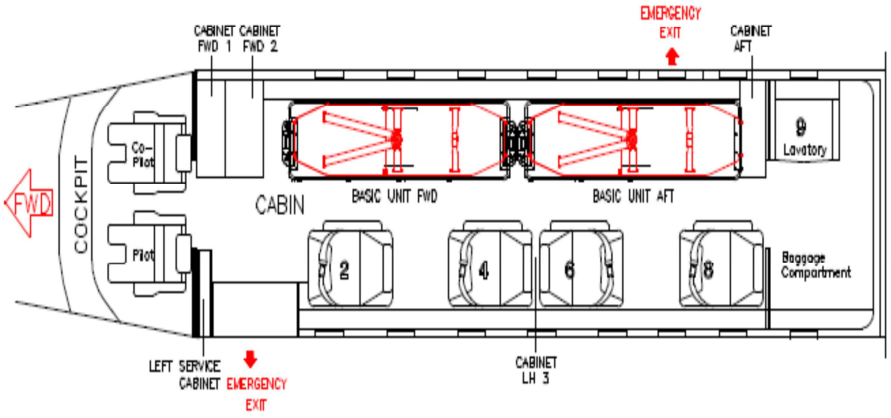
"2. Deviations from the applicable airworthiness codes, environmental protection certification specifications and/or acceptable means of compliance with Part 21, as well as important special conditions and equivalent safety findings, shall be submitted to the panel of experts and be subject to a public consultation of at least 3 weeks, except if they have been previously agreed and published in the Official Publication of the Agency. The final decision shall be published in the Official Publication of the Agency."

Statement of Issue

A STC applicant has developed a 'quick conversion' STC for Air Ambulance Equipment.

Among the various layout configurations possible (4 in total), a specific one is creating obstruction to the type III exit, as a stretcher is installed in front of the R/H Type III exit (See Fig 1).

2 Patient Configuration



According to applicable requirements, it's the understanding of the EASA Team that CS 25. 813c) "Emergency exit access, no more than minor obstructions" and CS25.807a) "step up inside of not more than 20inches" are not directly complied with for the installation of a stretcher in front of the type III exit.

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Applicant Proposal:

The applicant believes that some compensating factors could be applied to demonstrate an Equivalent Level of Safety to these requirements.

Applicant Safety Equivalency Demonstration:

From a design point of view, it is highlighted that the height of the stretcher support and the position of the stretchers one aft the other in the cabin R/H side tends to ease the movement of the both patients to the type III exit (no lifting of the patient to the emergency exit necessary) and their evacuation.

In addition, the applicant proposes the following compensating factors :

- The actual remaining projected Exit opening provided fullfills the dimension of a Type IV Exit according CS 25.807, which would be required for an aircraft with a maximum Passenger seating configuration of 9 or less. (Learjet 45: max passenger capacity is limited to 9)

- The Applicant will accomplish an evacuation test, to be witnessed by EASA team members. It has to be demonstrated that an ambulant, able bodied, trained person can access the exit, operate the hatch, and - together with the other participating person(s) - evacuate the patient(s). Although not required per regulation, a 90 seconds time limit will be used as upper acceptable limit.

- In addition to the non - ambulant persons on the stretchers the cabin will be occupied by a minimum of two trained able bodied persons per patient carried who have demonstrated their ability to climb over the stretcher incl patient to reach the type III exit, handle/operate the type III Exit hatch, evacuate through the exit themselves, coordinate the evacuation and evacuate the patients. The applicant will - based on the evacuation test - define the acceptance criteria (eg. size, strength ,…) for these ambulant, able bodied, persons. The AFM supplement will reflect those selection criteria and the necessary training and the number of these “attending persons”.

- No passengers (i.e. persons other than the ambulant/trained persons and the stretcher borne patients) may be carried. This limitation will be included in the AFM supplement.

- The AFM Supplement will address the necessary specific evacuation procedures.

  Note : Although only one layout configuration has revealed non-compliance issues, the AFM supplement will also address respective limitations on the number and ability of the “ambulant personal” for the other layout configurations, developed through this STC.