

**Proposed Equivalent Safety Finding on JAR 25.813 (c)(2)**  
**Applicable to Dassault Aviation Falcon 2000EX**

**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:**

Following issuance of explicit EASA rule clarification through publication of certification memorandum CM-CS-002 issue 1, dated 19 Sep 2011, EASA has clarified the intent of JAR 25.813(c)(2) and provided guidance to comply with it.

JAR 25.813 (c)(2) at Change 14 plus Orange Paper 25/96/1 states:

*(2) For aeroplanes that have a passenger seating configuration, excluding pilot's seats, of 19 or less, there may be minor obstructions in this region, if there are compensating factors to maintain the effectiveness of the exit.*

As stated in CM-CS-002 issue 1:

*Compliance demonstration with this requirement (i.e. no more than "minor obstructions") should be made with interior features such as seats, tables, foot/leg rests etc. placed in their most adverse configuration and location.*

**Applicant's proposal:**

The applicant's design proposal includes, in Falcon 2000EX, the installation of a longitudinal dining table, which is moveable, in front of the overwing Type III emergency exit.

In certain positions, it constitutes an obstruction in the region of the mentioned exit that cannot be considered "minor" in respect of this term's usage in JAR25.813(c)(2).

However, it is proposed that at 7 passengers, the seating capacity of this aircraft will be appreciably less than the maximum 19 limitation set by the exit configuration of the Falcon 2000EX.

It is proposed that the reduced passenger seating configuration is a factor providing a compensation required by 21A.21(c)2.

### **Applicant Safety Equivalency Demonstration:**

EASA is in agreement that it is possible to show an equivalent level of safety to direct compliance with 25.813 (c)(2), provided the effectiveness of the proposed compensating factor (i.e. the proposed reduced passenger seating configuration) is substantiated. The evacuation performance of the affected Type III exit must be shown to be maintained as per the following;

1. An evacuation rate test must be performed with the following aspects appropriately justified:
  - a. most adverse location/position of the obstructing dining table,
  - b. reproduction or simulation of the surrounding installation in so far as the surrounding features are deemed to impact the comparison between the compliant TT&L configuration and the obstructed exit,
  - c. configuration of the emergency exit hatch for the evacuation test,
  - d. number and range (age, gender, etc.) of naïve subjects,
  - e. a Latin Square method to compensate for history of exposure of the subjects to each configuration.

The test plan must be agreed with the Agency.

The evacuation test results must establish that the proposed reduced maximum passenger seating configuration can evacuate through the obstructed exit in the same time or less time than 19 occupants can evacuate through the same exit in its compliant TT&L configuration.

2. In all obstructing configurations of the dining table, the remaining size of the emergency exit aperture must remain at least as large as the minimum size required for a Type IV emergency exit.