

Proposed Deviation on FAR 25.815 : 'Width of aisle', for TT&L phases

Applicable to Dassault Falcon F900

Introductory note:

The hereby presented Deviation has been retained as important 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:

In the context of their application to an STC for a F900EX cabin interior modification, the applicant Dassault Falcon Service (DFS) has submitted a request related to non-compliance to FAR 25.815 requirements, summarised as followed:

- FAR 25.815 requires a minimum passenger aisle width of 51 cm (20 in) above 64 cm (25 in) from the floor for a seating capacity of 11 or more passengers.
- FAR 25.815 requires a minimum passenger aisle width of 38 cm (15 in) above 64 cm (25 in) from the floor for a seating capacity of 10 or fewer passengers.

Considering the concerned aircraft's seating capacity of 11, the aisle must be 51 cm (20 in) wide above 64 cm (25 in) from the floor.

However, immediately behind the Fr#14 partition (refer to relevant sketches in Appendix A and B), the seats' design and installation is such that the 20 inch dimension cannot be achieved. The achievable aisle width at this point is 38cm (15 in) for a portion associated with each backrest as shown on Appendix B.

At all other points in the cabin the required 51cm (20 in) can be achieved.

Below 64 cm (25 in) from the floor, the required minimum aisle width is 30 cm (12 in) for a seating capacity up to 19 passengers. This can be achieved at all points in the cabin.

Considering the differences between private and commercial operations, EASA regularly issues deviations, with certain restrictions, for private use airplanes allowing reduction of width of aisle during flight. However, EASA has not so far considered deviation for taxi takeoff and landing (TT&L) configuration.

Dassault Falcon F900 – Deviation D-9107

- Width of aisle during taxi take-off & landing -

The applicant has pointed out that, in any foreseeable evacuation scenario, no more than seven passengers would need to pass through the point with non compliant aisle width during an emergency evacuation.

The subject 11 passenger layout might therefore be compared to a compliant 10 passenger layout which would be allowed with multiple locations possessing an aisle width of no more than 38 cm (15 in) above 64 cm (25 in) from the floor. Furthermore, one or more such locations could be envisaged such that they need to be negotiated by as many as all 10 passengers in an evacuation situation. In the light of this, the single location in the subject 11 passenger layout where the aisle width is 38 cm (15 in) above 64 cm (25 in) from the floor does not seem so problematic.

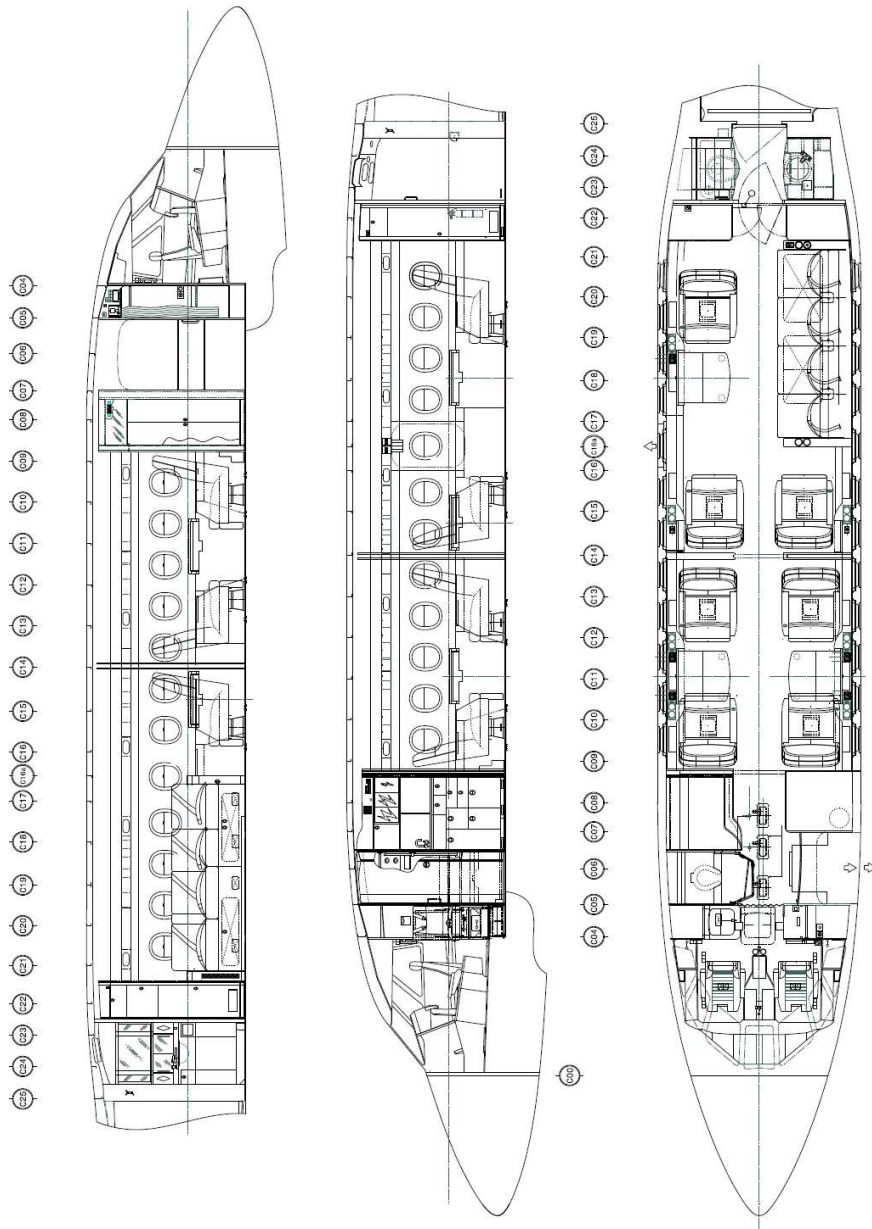
As a conclusion, Deviation to FAR 25.815 at amdt 56 can be granted associated with the following criteria :

1. A single location where the aisle width is non-compliant to FAR25.815 for an 11 passenger seating capacity is acceptable provided the aisle width at this point is compliant for a 10 passenger seating capacity.
2. The deviation is applicable only to the subject 11 passenger layout, as shown in Appendix A. The number of passengers needing to pass through the point of non-compliant aisle width in an emergency evacuation is thus no more than 7.
3. The deviation is limited to a single aircraft example and operation is limited to private use.

Appendix to Deviation D-9107

Appendix A

Floor Plan



Appendix B

Non compliant volume

