Proposed Special Condition on Installation of suite type seating

Applicable to A380

Introductory note:

The hereby presented Special Condition has been classified as an important Special Condition and as such shall be subject to public consultation, in accordance with EASA Management Board decision 02/04 dated 30 March 2004, 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

The design of the A380 cabins incorporates the “mini-suites”. Each of these mini-suites consists of a seat and surrounding “furniture”. Complete enclosure can be achieved by moving sliding partition element(s). On initial consideration, it would appear that the proposed design is not in compliance with JAR25.813 (e) and JAR 25.785(h)(2). However, further review of the design and consideration of the likely intent of the rule has indicated that an acceptable safety level might be achieved.

JAR 25.813(e) requires that “No door may be installed in any partition between passenger compartments”.

JAR 25.785 (h)(2) requires that “each seat located in the passenger compartment and designated for use during takeoff and landing by a cabin crewmember required by the operating rules must be: to the extent possible, without compromising proximity to a required floor level emergency exit, located to provide a direct view of the cabin area for which the cabin crewmember is responsible.”

A380 Special Condition D-41 – Installation of suite type seating

1. Only single occupancy of the Mini-suite is allowed during taxi, takeoff and landing
2. Mini-suite entrance can only provide access to the specific mini-suite
3. Mini-suites cannot provide an egress path for evacuation other then the path out of the mini-suite for its single occupant
4. Installation of the mini-suites must not introduce any additional obstructions or diversions to evacuating passengers, even from other parts of the cabin
5. The design of the doors and surrounding "furniture" above the cabin floor in the aisles must be such that each passenger's actions and demeanour can be readily

observed by cabin crew members with stature as low as the 5th percentile female, when walking along the aisle.

6. The mini-suite doors must be open during taxi, takeoff and landing

7. The hold open retention mechanism for mini-suite doors must hold the doors open under JAR 25.561(b) emergency landing conditions

8. There must be a secondary, backup hold open retention mechanism for the mini-suite doors that can be used to “lock” the doors in the open position if there is an electrical or mechanical failure of the primary retention mechanism. The secondary retention mechanism must hold the doors open under JAR 25.561(b) emergency landing conditions

9. There must be a means by which cabin crew can readily check, that all mini-suite doors are in the fully open and in the latched condition.

10. There must be means by which cabin crew can prevent the seated mini-suite occupant from operating the doors. This means is envisaged to be used in particular to secure the TTOL phases of the flight.

11. Appropriate placards, or other equivalent means must be provided to ensure the mini-suite occupants know that the doors must be in the open position for taxi, takeoff and landing

12. Training and operating instruction materials regarding the proper configuration of the mini-suite doors for taxi, takeoff and landing must be provided to the operator for incorporation into their cabin crew training programs and associated operational manuals.

13. The mini-suite must have an Emergency Passage Feature (EPF) to allow for evacuation of the mini-suite occupant in the event the door closes and becomes jammed during an emergency landing. This EPF may be through frangibility and /or a removable of emergency panel, or equivalent (such as dual sliding doors). The EPF must be easily broken /removed by the occupant of the mini-suite when the door becomes jammed. Trapping of any occupant is not acceptable and in no case shall the occupant using the EPF have to rely on another occupant to assist in passage. In addition a second path out of the mini suite must be provided. All ways to exit the mini suite in case of emergency must be demonstrated to work for a 5^{th} percentile female and a 95^{th} percentile male..

14. The height of the mini suite walls and doors must be such that a 95^{th} percentile male can fit between them and the airplanes interior furnishing.

15. No mechanism to latch the doors together in the closed position is allowed

16. The mini-suite doors must be openable from the inside or outside with 25 pounds force or less regardless of power failure conditions

17. If the mini-suite doors are electrically powered the doors must remained “locked” in the open position after power loss to the mini-suite

18. Mini-suites installation must maintain the main, cross aisles and passage ways

19. Mini-suite doors must not impede main aisle or cross aisle egress paths in the open ,closed or translating position

20. The mini-suite doors must be openable even with a crowded aisle

21. The number of individual passenger seat modules shall not exceed 25% of the max. seating capacity of the specific cabin zone according to the A380 Type Certification Layout

22. For compliance to JAR 25.785(h)(2) the length of each main aisle adjacent to the seat modules must be visible, at least such that the main aisle part remaining unobservable does not exceed 50% of the total main aisle width at the end of this cabin section (entrance area of last seat module), and

23. in case the main aisle width cannot be observed to at least 50% at the end of the cabin section (entrance area of last seat module), it is equivalent to have at least 80% of the seat module entrance areas in direct view from designated direct view seats, under the conditions of CRI D-9. An entrance area is considered visible, if a person standing in the main aisle, directly at the seat module entrance is observable. In line with the current assist space dimension a body depth of 12 inches is therefore assumed.

24. If special cabin areas are located in proximity to stairs, e.g. at the forward Upper Deck, the access to the stairs must be in view of the responsible cabin crewmember