EASA	CERTIFICATION MEMORANDUM
	**EASA CM No.: EASA CM - CS – 002 Issue No.: 01** **Issue Date: 19th of September 2011** **Issued by: Cabin Safety section** **Approved by: Head of Certification Experts Department** **Regulatory Requirement(s): CS 25.813(c)(4)(ii) Amendment 9, JAR/CS 25.813(c)(2) pre-amendment 9**

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Subject

Access to and Opening of Type III and IV Exits on Aeroplanes with Passenger Seating Capacities of 19 or Fewer

Log of Issues

Issue	Issue date	Change description
01	19.09.2011	First issue.

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1. INTRODUCTION

1.1. PURPOSE AND SCOPE

The purpose of this Certification Memorandum is to provide specific guidance for compliance to JAR/CS 25.813(c)(2) or CS 25.813(c)(4)(ii) Amendment 9 and later.

1.2. REGULATORY REFERENCES & REQUIREMENTS

It is intended that the following reference materials be used in conjunction with this Certification Memorandum:

Reference	Title	Code	Issue	Date
---	Certification Specification for Large Aeroplanes	CS-25	All	---
ANM-115-08-02	FAA Memorandum – Policy Statement on Access to and Opening of Type III and IV Exits on Airplanes with Passenger Seating Capacities of 19 or Fewer.	---	Initial	17/10/08

1.3. ABBREVIATIONS

The following abbreviations are used in this Certification Memorandum:

Abbreviation	Meaning
CS	**C**ertification **S**pecification
EASA	**E**uropean **A**viation **S**afety **A**gency
FAA	**F**ederal **A**viation **A**dministration
FAR	**F**ederal **A**viation **R**equirement
JAR	**J**oint **A**viation **R**equirement

1.4. DEFINITIONS

The following definitions are used in this Certification Memorandum:

Definition	Meaning
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2. BACKGROUND

In October, 2008 the FAA issued a policy statement (see 1.2 above) detailing acceptable means for compliance to FAR 25.813(c)(2)(ii).

FAR 25.813(c)(2)(ii) is identical to CS 25.813(c)(4)(ii) Amendment 9 (previous amendments – JAR/CS 25.813(c)(2)).

EASA has reviewed the contents of the FAA policy statement and has concluded that the issues raised apply also to compliance to the corresponding EASA requirement.

The most pertinent parts of that FAA policy statement can be summarised as follows:

When evaluating exit accessibility and openability, many applicants do not consider the seat and/or other moveable cabin features in their most adverse positions.

Some applicants have considered moveable cabin features to be in a position as noted on a placard (so-called taxi, take-off and landing position).This practice is not in line with the intent of the regulation.

Some applicants have used placards to control major obstructions that, if the placard were disregarded, would result in reduced effectiveness or even blocking of an exit. Major obstructions and reduced effectiveness of an exit are conditions that clearly do not comply with CS 25.813(c)(4)(ii) and its predecessor requirements.

Most aeroplane interiors for 19 or fewer passengers are configured to transport passengers who require a high level of comfort. In some cases, however, a placarded taxi, take-off, and landing position for a seat, berth, or other protrusion may result in less comfort level than the passenger desires. As an example, the taxi, take-off, and landing position may require that a seat be tracked so far forward that the occupant ends up with less knee room to the high-low table in front than in a typical commercial airliner which has no high-low table.

Such a placard would require the occupant of the seat to be in such an uncomfortable position that it is not likely that the occupant would configure the seat into the position, compliance has been demonstrated in. It should be noted that operating rules (EU-OPS) do not require a flight attendant to be on board an aeroplane carrying 19 passengers or less, so there would be no way of ensuring that seats are in the required position during taxi, take-off, and landing.

A specific example where placard instructions were not followed can be found in Transport Safety Board of Canada Aviation Investigation Report Number A05Q0024, issued on February 21, 2005.

That report documents Board findings for an accident involving an aeroplane with 2 crewmembers and 4 passengers on board. The aeroplane touched down 1800 feet beyond the threshold of a runway. It continued its course until stopped by a ditch. There were two exits in the aeroplane—a main door exit on the left side and an overwing exit on the right. At the time of the accident, a cabinet, which was serving as an armrest for a side-facing seat, partially blocked the overwing exit. A placard indicated that the armrest/cabinet must be removed before each take-off and landing. Passengers did not follow the instructions on the placard. The report provides the following "Finding as to Risk":

> "The armrest of the side seat had not been removed as required and was blocking access to the emergency exit, which could have delayed the evacuation, with serious consequences."

The following summarises the reasons why placards are not acceptable for ensuring access to, or openability of, Type III and IV exits:

- Neither the airworthiness regulations nor the operating regulations require a flight attendant for aeroplanes with 19 or fewer passenger seats. As a result, there are no flight attendants on board to verify that placarded instructions are followed. Even if a non-required flight attendant is on board, or a person whose job it is to provide passenger convenience/service only, passengers can still move the seats after this person has completed his/her preparatory duties.

- During a flight with less than a full passenger complement, someone may sit in a seat, move it to a comfortable position that blocks the exit, and then get up and move to another seat prior to landing. In this likely scenario, there may not be any occupant in the seat blocking the exit to read and follow the placarded instructions.
- A passenger may choose to ignore a placard because the taxi, take-off, and landing position of a seat is uncomfortable (see above). A passenger could also forget to follow the placard, even after an announcement from the flight crew.
- There is documented evidence of such placards being ignored and, as a result, an exit being blocked during an aeroplane accident (see above).
- Aeroplanes with passenger seating configurations of 19 or fewer are only required to have one exit on each side of the aeroplane. It is very possible that the exit on one side of the aeroplane would be unusable due to fire, extensive crash damage, or an obstruction outside the aeroplane. If placarded instructions are not carried out, resulting in the only other exit being blocked or obstructed, this could result in a significant delay in evacuating the aeroplane. This, in turn, could result in fatalities.

The following are some reasons why crew procedures are not an acceptable way of ensuring that interior features in the passenger cabin next to exits are in a required taxi, take-off, and landing position:

- Flight crew should not be subjected to distractions that could diminish effective accomplishment of their duties (such as runway incursion prevention). Flight crew procedures should not require them to ensure passenger seats or other interior features in the passenger cabin are in a required taxi, take-off, and landing position. Taxi, take-off, and landing are critical phases of flight.
- Passengers could still move seats after flightcrew procedures are accomplished.
- During a flight without a full passenger complement, someone may sit in a seat, reconfigure it to a comfortable position that blocks the exit, and then move to another seat prior to landing. In this scenario, a flight crew announcement to configure that seat is not sufficient. No one is sitting in the seat next to the blocked exit. The passengers, none of whom is sitting in that seat, may not take responsibility for properly configuring a seat that is not their own.
- Passengers might ignore a flight crew announcement to configure their seats for taxi, take-off, or landing because the required configuration is uncomfortable (see above) or, they may simply forget to follow the instruction.

3. EASA CERTIFICATION POLICY

3.1. EASA POLICY

The intent of this EASA policy statement is to provide guidance for complying with Type III and Type IV exit access and openabilty requirements for aeroplanes with 19 or fewer passenger seats.

The EASA policy is as follows:

Crew procedures or placards that specify a required taxi, take-off, and landing configuration are not sufficient to ensure access to, or openability of, Type III and IV exits in accordance with CS 25.813(c)(4)(ii) Amendment 9 (previous amendments – JAR/CS 25.813(c)(2)) on aeroplanes with 19 or fewer passenger seats.

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.

For seats that translate along a track or seat pan to detent or locked positions where the seat is secured, only the detent or locked positions need to be evaluated.

Similarly, for seats that swivel, only detent or locked positions need to be evaluated.

3.2. WHO THIS CERTIFICATION MEMORANDUM AFFECTS

Anyone who is applying for approval of a design that must show compliance to CS 25.813(c)(4)(ii) Amendment 9 (previous amendments – JAR/CS 25.813(c)(2)).

4. REMARKS

1. Suggestions for amendment(s) to this EASA Certification Memorandum should be referred to the Certification Policy and Planning Department, Certification Directorate, EASA. E-mail CM@easa.europa.eu or fax +49 (0)221 89990 4459.
2. For any question concerning the technical content of this EASA Certification Memorandum, please contact:

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