

aisle. In that case, all possible interactions between the door and the obstacle should be assessed. In general, items need only be considered in their most adverse detent or locked position.

- (5) For the purpose of showing compliance, the applicant may use tests, analyses supported by test data, or, where appropriate, inspections.
- (6) In principle, the total time required for a crew member to travel from the forwardmost point in the cabin to the rearmost point, with all aisle obstacles in their most adverse positions, should not exceed by more than 30 seconds the time it would take without the obstacles in place. However, the cabin may be divided into zones, provided that each zone includes the quantity and type of emergency equipment adequate for firefighting, and that it can be substantiated that at least one cabin crew member is likely to occupy that zone during the majority of the flight. It should be shown that the time required for a cabin crew member to travel from the forwardmost point to the rearmost point of each zone, with all aisle obstacles in their most adverse positions, will not exceed by more than 30 seconds the time it would take without the obstacles in place.
- (7) If an unobstructed passageway exists as an alternative to the obstructed one (e.g. aeroplanes with two aisles), it may be acceptable for this alternative route to be used when showing compliance. Such acceptability will depend on a case-by-case assessment of the degree to which such an alternative route would be obvious to the crew member.

Note: interior doors are not addressed by the requirements of S25.30(a) but rather by the requirements of S25.10(a) and (b).

[Amdt 25/19]

AMC to Appendix S, S25.30(b) Firm Handholds

ED Decision 2017/015/R

Where the cabin layout is similar to a standard airline layout, firm handholds as normally expected for such seating areas should be provided.

Where closely spaced firm handholds cannot be easily provided, the ‘Firm Handholds’ requirement can be considered as complied with, provided the following conditions are met:

- (1) there should be a recommendation to passengers to remain seated with seat belts fastened, which may be a placard or a required (i.e. specified in the AFM) pre-flight briefing;
- (2) there should be at least one route through each area that provides firm handholds to enable passengers to reach their designated seats; in these areas:
 - (a) firm handholds should be mounted at least 66 cm (26 in.) high; and
 - (b) the distance between firm handholds should not be greater than 2.15 m (84 in.);
- (3) wherever aisles are not bordered by seats, it is acceptable that occupants may steady themselves by leaning on sidewalls or other interior components; and
- (4) in any case, the applicant shall demonstrate that items used as firm handholds are structurally adequate to perform this function.

[Amdt 25/19]

S25.40 Markings and Placards

ED Decision 2017/015/R

- (a) ‘No Smoking’ Placards and Lavatory Ashtrays: if smoking is to be prohibited, in lieu of the requirements of CS 25.791(a) and CS 25.791(d), a reduced number of ‘No smoking’ placards may be provided and lavatory ashtrays do not need to be provided in accordance with the following:
- (1) a ‘No smoking’ placard must be conspicuously located inside the passenger compartment in the immediate vicinity of each door that can be used as a passenger boarding door. Each placard must be clearly legible for passengers entering the aeroplane;
 - (2) compliance with CS 25.853(g) is not required; and
 - (3) the indication that smoking is prohibited must be the subject of a passenger briefing, and the requirement for this briefing must be part of the AFM.
- (b) Briefing Card Placard: for non-commercially operated aeroplanes, the instructions required by CS 25.1541 for properly setting the cabin in its configuration approved for taxiing, take-off, and landing may alternatively be provided by a reduced number of placards, each one referring to a briefing card. In that case (See AMC to Appendix S, S25.40(b)):
- (1) the detailed minimum instructions to be included in the briefing card must be part of the type design and referred to in the ‘Limitations’ section of the AFM; and
 - (2) the briefing card must be easily accessible from each passenger seat. A dedicated stowage must be provided to stow the briefing card within easy reach of each seated passenger with their seat belts fastened.
- (c) Seats in Excess (See AMC to Appendix S, S25.40(c))
- (1) If the total number of seats that are approved for occupancy during taxiing, take-off, and landing is greater than the approved passenger seating configuration, the difference between these two quantities is deemed to be seats in excess. If seats in excess exist, a placard indicating the approved passenger seating configuration must be installed adjacent to each door that can be used as a passenger boarding door. This placard must be clearly legible for passengers entering the aeroplane. Additionally, a note must be included in the ‘Limitations’ section of the AFM stating that there are excess seats installed, and indicating the maximum number of passengers that may be transported.
 - (2) For each seating location available for in-flight use only (including in-flight-only seats, beds, berths, and divans), a placard indicating that the location is not to be occupied during taxiing, take-off, and landing must be installed such that the placard is legible to the seated occupant.

[Amdt 25/19]

AMC to Appendix S, S25.40(b) Briefing Card Placard

ED Decision 2017/015/R

The instructions that may be reported on the briefing card referred to in S25.40(b) are limited to the instructions necessary to restore the configuration of the passenger cabin to that approved for taxiing, take-off, and landing. All other placards required by CS-25 are excluded from the provisions of S25.40(b).

For example, and where applicable, a briefing card may be used to deliver information related to setting seats in the upright position, stowing leg rests/armrests, repositioning ‘high–low’ position tables, opening/closing doors, installing crash pads, etc.

The content added to the briefing card to cover information conventionally conveyed via placarding, and the means to provide accessibility to this information will need to be approved as part of the type design. However, it may be desired to include additional safety information on the same briefing card. This may be due to operational requirements for a briefing card, or may be at the applicant’s or customer’s discretion. This is acceptable, and this additional information will not be subject to approval as part of the type design.

However, limitations on the presentation of this additional information on the briefing card (e.g. size, style, relative location) may need to be stated in the type design in order that both sets of information remain appropriately conspicuous to the passengers.

When design solutions are proposed using placards that make reference to a briefing card for further instructions, the following should be considered:

- (1) Individual placards at each seat location may be replaced by a simplified placard referring to the briefing card. For example: ‘Refer to the briefing card to configure cabin/seat/table/leg rest for taxiing, take-off, and landing’.
- (2) Alternatively, one single placard stating, for example, ‘Moveable items in this area should be configured in accordance with the briefing card for taxiing, take-off, and landing’, and visible from each seated position of a group of seats, may be used.
- (3) The briefing card should be demonstrated to be accessible from each passenger seat. A dedicated stowage (e.g. pocket) easily recognisable by a seated passenger, or when approaching the seat, shall be provided. The briefing card should be within easy reach of each passenger with their seat belt fastened, except in some cases where this may be impracticable. For instance, it may be acceptable that a passenger occupying the centre place of a three-place divan is not able to reach the briefing card with their seat belt fastened. In such a case, EASA may accept that either the left hand (LH) or right hand (RH) place of the divan will most likely be occupied, and that this passenger’s access to the briefing card will provide him/her with the required awareness of necessary pre-flight and landing actions.
- (4) The briefing card information should be clear and simple. It is expected that the additional space offered by the briefing card, relative to conventional placarding, will allow applicants to provide more easily understood safety instructions. The use of pictograms is encouraged.

[Amdt 25/19]

AMC to Appendix S, S25.40(c) Seats in Excess

ED Decision 2017/015/R

S25.40(c) requires the installation of a placard, adjacent to each possible passenger boarding door, on aeroplanes which have a greater number of seats approved for occupancy during taxiing, take-off, and landing than the approved passenger seating configuration. It may be acceptable that the selection of which seats to occupy is at the operator’s/passenger’s discretion, or constraints may exist for instance due to the zonal limitations set by S25.1(a)(2), or the varying passenger seating configuration and/or direct-view limitations for an aeroplane with different, reconfigurable, cabin designs approved for

private versus commercial transport operations. In such cases, the placard should indicate limitations of the allowable seating occupancy for taxiing, take-off, and landing, as appropriate, for each cabin zone, and not just for the aeroplane as a whole; moreover, different indications should be provided with reference to the different type of operations that may be performed (non-commercial/commercial).

Additionally, if it is decided to help passengers in selecting acceptable seating locations by means of markings on a seat or seats, a local placard (text or symbolic), easily readable by a passenger approaching/seated on each such seat, should be provided. The placard should be of adequate size for easy readability.

[Amdt 25/19]

S25.50 Cabin Attendant Direct View

ED Decision 2017/015/R

In lieu of the requirements of CS 25.785(h)(2), compliance with the following cabin attendant direct view requirements may be shown:

- (a) For non-commercially operated aeroplanes, at least half of the installed cabin crew member seats must face the passenger cabin.
- (b) For low-occupancy aeroplanes, cabin crew member seats must be, to the extent possible, without compromising proximity to a required floor level emergency exit, located to provide direct view of the cabin area for which the cabin crew member is responsible (See AMC to Appendix S, S25.50(b)).

[Amdt 25/19]

AMC to Appendix S, S25.50(b) Cabin Attendant Direct View

ED Decision 2017/015/R

For commercial operations, compliance with CS 25.785(h)(2) may be shown based on the criteria of FAA AC 25.785-1B, Flight attendant seat and torso restraint system installations, 11 May 2010, with the following deviations from Section 10 thereof:

- (1) Subparagraph 10a(2) is amended to read as follows:
 - (2) 'Each floor level emergency exit adjacent to a required crew member seat';
- (2) Subparagraph 10a(3) is amended to read as follows:
 - (3) 'At least 50 % of the total number of passenger seats authorised for occupancy during taxiing, take-off, and landing.';
- (3) Subparagraph 10a(4) is amended to read as follows:
 - (4) 'At least 25 % of the passenger seats in each visually divided zone of four or more passenger seats.'; and
- (4) Subparagraph 10b(3)(a) is amended to read as follows:
 - (a) 'A person seated in the seat is visible when they make any upper-body movement, such as moving their arm over their head or sideways, including leaning, while belted on their seat.'

[Amdt 25/19]

S25.60 Security*ED Decision 2018/005/R*

Non-commercially operated aeroplanes do not need to comply with the security specifications of [CS 25.795\(b\), \(c\) and \(d\).](#)

[Amdt 25/21]

GENERAL AMCs

AMC 25-1 On-board weight and balance systems

ED Decision 2020/024/R

Applicants for the certification of an on-board weight and balance system should take account of EUROCAE Document ED 263, 'Minimum Operational Performance Standard for Onboard Weight and Balance Systems', dated June 2019.

ED-263 defines standards for an advisory OBWBS (i.e. class II) that displays the measured gross weight and calculated centre of gravity for use by the flight crew as an independent means of verifying the conventional weight and balance information provided for the preparation of the dispatch of the aeroplane (e.g. the load sheet). These standards are intended to ensure that the system satisfactorily performs its intended function(s) under all the conditions normally encountered during routine operation of the aeroplane.

[Amdt 25/26]

AMC 25-11 Electronic Flight Deck Displays

ED Decision 2020/024/R

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CHAPTER 1 BACKGROUND**1. What is the purpose of this AMC?**

This AMC provides an Acceptable Means of Compliance for demonstrating compliance with certain Certification Specifications of CS-25, as well as general guidance for the design, installation, integration, and approval of electronic flight deck displays, components, and systems installed in large aeroplanes.

[Appendix 1](#) to this AMC provides additional guidance for displaying primary flight information (required by [CS 25.1303\(b\)](#) and [CS 25.1333\(b\)](#)), and [Appendix 2](#) to this AMC provides additional guidance for powerplant displays.

2. Who does this AMC apply to?

- a. The acceptable means of compliance and guidance provided in this document is directed to aeroplane and avionics manufacturers, modifiers, and operators of large aeroplanes.
- b. This material describes acceptable means, but not the only means, for demonstrating compliance with the applicable certification specifications. The Agency will consider other methods of demonstrating compliance that an applicant may elect to present. While these guidelines are not mandatory, they are derived from extensive Agency and industry experience in determining compliance with the relevant certification specifications. Applicants for a European Technical Standard Order (ETSO) approval should consider following this AMC when the ETSO does not provide adequate or appropriate specifications.

3. [RESERVED]**4. General**

This AMC applies to the design, integration, installation, and certification approval of electronic flight deck displays, components, and systems for large aeroplanes. As a minimum this includes:

- General airworthiness considerations,
- Display system and component characteristics,
- Safety and criticality aspects,
- Functional characteristics,
- Display information characteristics,
- Guidance to manage display information,
- Flight crew interface and interactivity, and
- Airworthiness approval (means of compliance) considerations.

Table 1, below, lists the topics included in this AMC. Table 2, below, lists the topics not included in this AMC.

Table 1: Topics Covered in this AMC

Topics
Electronic pilot displays – including single-function and multi-function displays.
Display features and functions that are intended for use by the pilot.
Display functions not intended for use by the pilot if they may interfere with the pilot's flying duties.
Display aspects of Class III Electronic Flight Bag (installed equipment).