INTERNATIONAL STANDARD

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Aircraft — Passenger doors interface requirements for connection of passenger boarding bridge or passenger transfer vehicle —

Part 2: Upper deck doors

Aéronefs — Exigences d'interface des portes passagers pour accouplement d'une passerelle passagers ou de véhicules de transfert de passagers —

Partie 2: Portes de pont supérieur

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 9, *Air cargo and ground equipment*.

This second edition cancels and replaces the first edition (ISO 7718-2:2009), of which it constitutes a minor revision with the following changes:

— the title has been modified by adding "passenger transfer vehicle";

— Figure 1 has been modified;

— additional editorial changes have been made, such as by adding a table of contents.

A list of all parts in the ISO 7718 series can be found on the ISO website.

Introduction

This document specifies minimum dimensional and unobstructed space requirements around upper deck passenger doors on the outer skin of civil transport aircraft, applicable when these doors are designed to accept connection of existing passenger boarding bridges or transfer vehicles.

Throughout this document, the minimum essential criteria are identified by use of the keyword “shall”. Recommended criteria are identified by use of the keyword “should” and, while not mandatory, are considered to be of primary importance in providing easily and economically handled aircraft, as well as preventing damage to the aircraft as a result of passenger boarding bridge interference. Deviation from recommended criteria can only occur, after careful consideration, if positively required by basic aircraft-design factors with a significant operational cost impact.

Aircraft — Passenger doors interface requirements for connection of passenger boarding bridge or passenger transfer vehicle —

Part 2:
Upper deck doors

1 Scope

This document specifies the minimum dimensional and unobstructed space requirements around future civil-passenger transport aircraft upper deck passenger doors when they are intended to be compatible with passenger boarding bridges planned in airports worldwide.

This document is not applicable to existing models of civil transport aircraft, or derivative models with entry into service up to year 2000 with the same fuselage, for which the aircraft-mating section of passenger boarding bridges or passenger transfer vehicles is expected to be compatible with ISO 16004. However, it is expected that the design of such aircraft types may be taken into account for design of passenger boarding bridges capable of upper deck servicing, in addition to this document.

It is not the intent of this document to restrict in any way the basic design of any future types of civil-passenger transport aircraft. It aims, however, at clarifying for aircraft design engineers the design characteristics which would make it difficult or impossible for a new type of aircraft to adequately connect with airport passenger boarding bridges. Should basic aircraft design requirements impose on a future model certain dimensional characteristics not complying with this document, note that:

— either alternative methods of embarking/disembarking passengers will need to be implemented, such as using the internal aircraft stairs, etc.;

— or upper deck passenger boarding bridges in the airports where such a new type of aircraft is to operate will require some degree of modification/reworking;

— or additional interface devices/equipment will be required in order to connect such a new type of aircraft with existing upper deck passenger boarding bridges.

Each case results in increased aircraft-handling constraints and operating cost.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 7718-1, *Aircraft — Passenger doors interface requirements for connection of passenger boarding bridge — Part 1: Main deck doors*

ISO 16004, *Aircraft ground equipment — Passenger boarding bridge or transfer vehicle — Interface requirements with aircraft doors*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

4 Requirements

4.1 Minimum unobstructed space

4.1.1 Unobstructed space shall be provided for the connection of the passenger boarding bridge or passenger transfer vehicle as shown by the hatched area in Figure 1. The area bound by the dotted line represents the opening of the bridge or vehicle.

4.1.2 This area shall be kept completely clear of any external features such as aerials, drains, pitot heads, static ports, sensors, incidence probes, aerodynamic strakes, access panels, etc.

4.1.3 Protrusions intended to divert rainwater away from the door opening are allowable in this area, provided they are not deemed part of the aircraft's structural or aerodynamic integrity and they do not interfere with the deployment of the PBB canopy.

4.2 Minimum radius of the fuselage

The cross-section radius of the fuselage in any part of the area defined in Figure 1 should not be less than 1,6 m (63 in).

4.3 Door sill height

The passenger door sill height above the ground, at any part of its excursion range during normal airport servicing/transit operations, should not exceed 8,4 m (330 in).