

AEROSPACE STANDARD

AS7995™

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Passenger Access Means Docking Indicator for Cabin Crew

RATIONALE

Current airline procedures typically require the presence of a person in the equipment docking to the aircraft to confirm the correctly docked status prior to the aircraft door being opened. State-of-the art, automated passenger boarding stairs (PBS), mobile passenger boarding ramps (PBR) and passenger boarding bridges (PBB) allow docking/mating at the aircraft without the need for anybody to be in the equipment. Therefore, the need for a standard for equipment to indicate its docked status at an aircraft to the on-board cabin crew.

INTRODUCTION

Opening of a passenger aircraft door when no equipment is in place or if the equipment is not correctly docked/mated could lead to unsafe conditions (e.g., falls from height, other injuries, damage to aircraft, damage to equipment).

Usage of the new standard signaling system to advise on-board cabin crew regarding the docked status of the PBS, PBR, or PBB with the aircraft will increase operational safety, mitigate damages to the equipment and aircraft, as well as reduce delays.

Usage of the new standard signaling system does not exempt the usage of the existing warning equipment signals when the equipment is in motion, e.g., flashing lights/beacon lights indicating to ramp staff on the ground that the equipment is moving, the backwards movement buzzer.

1. SCOPE

This SAE Aerospace Standard describes the system used by passenger boarding stairs (PBS) mobile passenger boarding ramps (PBS) and boarding bridges (PBB) to inform on-board cabin crew about the docking status of the PBS/PBR/PBB and whether it is positioned such that it is safe to open the aircraft door.

Current practice calls for the PBS/PBR/PBB operator to knock on the aircraft door to inform the cabin crew that it is safe to open the aircraft door.

New technologies being incorporated into PBS/PBR/PBB such as remote control systems and autonomous driving vehicles are entering the market. As such, new/updated controls and/or procedures are necessary to ensure continuing safe operations.

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Documents

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2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AIR1375	Minimum Safety Requirements for Special Purpose Airline Ground Support Equipment
AIR6133	Design and Safety Criteria for Passenger Boarding Stairways
ARP1247	Aircraft Ground Support Equipment - General Requirements
AS6896	Aircraft Markings for Ground Support Equipment Alignment

2.1.2 Other Publications

EN 1915-1:2022	Aircraft ground support equipment - General requirements - Part 1: Basic safety requirements
EN 12312-1: 2022	Aircraft ground support equipment - Specific requirements - Part 1: Passenger stairs
EN 12312-4: 2022	Aircraft ground support equipment - Specific requirements - Part 4: Passenger boarding bridges
IATA AHM 903	GSE Classification and Identification
IEC 60529	Degrees of protection provided by enclosures (IP Code)

2.2 Definitions

2.2.1 Equipment

- Passenger stairs (PBS): Stair designed for the embarking and disembarking of passengers between the aircraft and the ground. They can be truck mounted or a purpose-built stair unit.
- Mobile passenger boarding ramps (PBR): Ramp or series of ramps designed for the embarking and disembarking of passengers between the aircraft and the ground.
- Passenger boarding bridges (PBB): Enclosed adjustable passenger walkway connecting the terminal building with the aircraft.

2.2.2 System

- Lighting device: Lights used to inform the on-board cabin crew about the docking status of the equipment and whether it is safe to open aircraft door or not.

3. SYSTEM DESCRIPTION

The system is made up of a set of light(s) and other optional indicators, used to inform the on-board cabin crew whether the PBS/PBR/PBB is properly docked/mated to the aircraft and it is safe to open aircraft door.