



U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Aircraft Secondary Barriers and Alternate
Flight Deck Security Procedures

Date: 4/14/15

AC No: 120-110

Initiated by: AFS-200
from AFS-007

Change:

1. PURPOSE.

a. This advisory circular (AC) calls attention to RTCA Document (RTCA/DO-329) Aircraft Secondary Barriers and Alternative Flight Deck Security Procedures, as guidance to achieve effective protection of the flight deck as required by Title 14 of the Code of Federal Regulations (14 CFR) part 121 § 121.584(1)(a).

b. This AC is not mandatory and does not constitute a regulation. It describes an acceptable means, but not the only means, to comply with pertinent regulatory requirements.

2. APPLICABILITY. This AC applies to air carriers, manufacturers, installers, field offices, regional offices, and headquarters (HQ) to convey effective methods to best protect the flight deck during door transition. To that end, this AC identifies RTCA/DO-329 as a means of compliance to § 121.584(1)(a).

3. RELATED TITLE 14 CFR PARTS.

a. Part 25.

(1) Section 25.772 – Pilot Compartment Doors.

(2) Section 25.795 – Security Considerations.

b. Part 121.

(1) Section 121.135 – Manual Content.

(2) Section 121.313 – Miscellaneous Equipment.

(3) Section 121.547 – Admission to flight deck.

(4) Section 121.584 – Requirement to view the area outside the flightdeck door.

(5) Section 121.587 – Closing and locking of flightcrew compartment door.

4. RELATED READING MATERIAL. RTCA, Inc. Document RTCA/DO-329. Order copies of RTCA/DO-329, Aircraft Secondary Barriers and Alternative Flight Deck Security Procedures, dated September 28, 2011, from RTCA, Inc., 1150 18th Street NW, Suite 910, Washington, D.C. 20036 or order online from RTCA, at <http://www.rtca.org/>.

5. BACKGROUND.

a. On long flights, as a matter of necessity, crewmembers must open the flight deck door to access lavatory facilities, to transfer meals to flightcrew members, or to switch crew positions for crew rest purposes. The opening and closing of the flight deck door (referred to as “door transition”), reduces the protective anti-intrusion/anti-penetration benefits of the reinforced door, if crewmembers do not properly use established procedures and/or equipment. During this door transition, the flight deck is vulnerable.

b. To date, passenger-carrying air carriers have employed several methods to support security of the flight deck when opening the flight deck door during flight. One method employs a combination of procedures using crewmembers to monitor the area and/or aircraft equipment, such as galley carts, to block access to the flight deck during the door transition.

c. An alternate method (that is in use at several air carriers), is to block access to the flight deck through the use of an installed physical secondary barrier (IPSB).

6. DISCUSSION OF RTCA/DO-329.

a. Why Use RTCA/DO-329.

(1) Use of RTCA/DO-329 provides a standard measure of protection of the flight deck during door transition.

(2) Use of /DO-329 provides an objective means of measuring compliance with § 121.584 requirements regarding flight deck security.

(3) RTCA/DO-329 establishes a standard for specific threats, how to impede them, and for how long (i.e., 200 lb. male for 5 seconds).

(4) RTCA/DO-329 offers several methods that an operator can select to best protect their flight deck.

(5) Finally, RTCA/DO-329 is data driven. It was created by members from industry, government, and document research and best practices currently utilized (e.g., the door should be opened for a maximum duration of 3 seconds), as well as data obtained from actual testing in cooperation with the Transportation Security Administration (TSA) Federal Air Marshall Service.

b. Presentation of Compliance with § 121.584 Using RTCA/DO-329.

(1) Show compliance using RTCA/DO-329 through the following steps:

(a) Step 1: Determine the method of secondary flight deck security you intend to use.

- Use of an IPSB per section 2.3. Installation of the IPSB is an alteration to the aircraft. The data approvals required for installation of the IPSB will vary based on the complexity of the design, the impact it has on the aircraft's airworthiness characteristics and the level of design and production approval of the IPSB. Work with your principal inspectors and/or the local ACO to determine what type of data approvals are required for the alteration.
- Use of improvised non-installed secondary barriers (INSB) per section 2.4 or,
- Use of human secondary barriers (i.e., flightcrew members) per section 2.5.

(b) Step 2: Establish objective evidence of compliance to the method of secondary flight deck security selected, to include required training of crewmembers.

(c) Step 3: Present the method and objective evidence of compliance to the Federal Aviation Administration (FAA) Principal Operations Inspector (POI), for approval.

(2) **Non-U.S. Air Carriers.** Considerations for non-U.S. air carriers are contained in section 3 of RTCA/DO-329.

7. WHERE YOU CAN FIND THIS AC. You can find this AC on the FAA's Web site at http://www.faa.gov/regulations_policies/advisory_circulars.

ORIGINAL SIGNED by

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