



**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

GENERAL COUNSEL

July 13, 2020

1200 New Jersey Avenue S.E.
Washington, D.C. 20590

The Honorable Henry J. Kerner
Special Counsel
U.S. Office of Special Counsel
1730 M Street NW., Suite 218
Washington, D.C. 20036

Re: OSC File No. DI-16-2046

Dear Mr. Kerner:

On April 13, 2020, you referred a whistleblower disclosure by Robert J. Maclean, former Federal Air Marshal, alleging that the Federal Aviation Administration (FAA) has failed to implement and enforce preventive measures to secure the flight decks of passenger aircraft. The Secretary has delegated responsibility for this matter to me. Enclosed is the Department's report on this matter.

The whistleblower alleged: 1) "FAA failed to require aircraft operators to implement flight deck doors that open outward and away from the flight deck," and 2) "FAA failed to require aircraft operators to implement installed physical secondary barrier systems, which function as another layer of protection between the passenger area and the flight deck." Based on the complaint, OSC determined there may be "a violation of law, rule, or regulation; as well as a substantial and specific danger to public safety."

As described in the enclosed report, there are no laws, rules, or regulations that would require either flight deck doors to open into the cabin, or the installation of physical secondary barriers onto aircraft in the *current* fleet. FAA is administering the existing regulations that apply to flight deck safety in accordance with Federal law. As further described in the enclosed report, when viewed in proper context of FAA's overall execution of its aviation safety mandate, the flight deck security issues that the whistleblower presents do not constitute a substantial and specific danger to public safety.

With regard to the requirement in the FAA Reauthorization Act of 2018 (P.L. 115-254), Section 336, for FAA to issue an order mandating installation of a physical secondary flight deck barrier, this provision applies to *newly manufactured* passenger airplanes entering part 121 service. This provision is subject to the Administrative Procedure Act and therefore FAA must follow the rulemaking process to implement the requirement. FAA is currently working to prepare a Notice of Proposed Rulemaking (NPRM), with an announced publication target of April 2021 in the Spring 2020 Unified Agenda.

I appreciate the opportunity to review this important matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven G. Bradbury". The signature is written in a cursive, slightly slanted style.

Steven G. Bradbury

Enclosure





Federal Aviation Administration

Memorandum

Date: July 10, 2020

To: Steven G. Bradbury, General Counsel (and performing the functions and duties of Deputy Secretary)

From: Steve Dickson, Administrator 

Prepared By:  FAA Associate Administrator for Aviation Safety

Subject: Whistleblower Complaint Referral by the Special Counsel: OSC File No. DI-16-2046 (Protection of Aircraft Flight Decks)

EXECUTIVE SUMMARY

On April 13, 2020, the Office of Special Counsel (OSC) referred a whistleblower disclosure by Robert J. Maclean, former Federal Air Marshal, alleging that the Federal Aviation Administration (FAA) has failed to implement and enforce preventive measures to secure the flight decks of passenger aircraft. Specifically, the whistleblower alleged that “FAA failed to require aircraft operators to implement flight deck doors that open outward and away from the flight deck,” and that “FAA failed to require aircraft operators to implement installed physical secondary barrier systems, which function as another layer of protection between the passenger area and the flight deck.” Based on the complaint, OSC determined there may be “a violation of law, rule, or regulation; as well as a substantial and specific danger to public safety.” You delegated to me the responsibility to review the current state of FAA’s action with regard to the allegations, to assess the legal and safety considerations, and to investigate the allegations.

There are no laws, rules, or regulations that would require either flight deck doors to open into the cabin, or the installation of physical secondary barriers onto aircraft in the *current* fleet. FAA is administering the existing regulations that apply to flight deck safety in accordance with Federal law. Viewed in proper context of FAA’s overall execution of its aviation safety mandate, the flight deck security issues that the whistleblower presents do not constitute a substantial and specific danger to public safety, as explained below.

BACKGROUND

On January 15, 2002, FAA amended its regulations to require certain U.S. air carriers to install reinforced flight deck doors that provide intrusion resistance and ballistic penetration resistance.¹

¹ Amendment 121-288 to Title 14 of the Code of Federal Regulations (14 CFR) Part 121.

Although there have been no flight deck breaches since the adoption of these hardened flight deck door requirements, flight deck security continues to be an issue of concern. The Office of Inspector General (OIG) completed an audit of flight deck security in 2017 that made six recommendations to the FAA to improve cockpit safety and security. FAA has addressed all of the OIG recommendations; however, OIG still views two of the six recommendations as open. Neither of those two recommendations would direct the specific actions that the whistleblower here seeks.²

The Transportation Security Administration (TSA) formed a secondary flight deck barrier working group under its Aviation Security Advisory Committee in 2018, but the group did not reach consensus on recommendations for secondary flight deck barriers.

DISCUSSION

The Special Counsel cited two allegations in the referral.

Allegation: FAA failed to require aircraft operators to implement flight deck doors that open outward and away from the flight deck.

As an initial matter, there are no laws, rules, or regulations requiring flight deck doors to open into the cabin. Consequently, FAA has not failed to implement or enforce any such requirement.

Second, a narrow focus on security considerations relative to flight deck doors is inadequate in judging public safety needs. Doors that open into the flight deck often accommodate compliance with important safety standards governing the certification and manufacturing of aircraft. For example, certification standards require that airplane designs provide a method to compensate for a sudden decompression of the airplane in a manner that avoids significant damage to the airplane. Separate compartments—like the cabin and the flight deck—must be designed so that the pressure differential that is created does not compromise the basic airplane structure. In most cases, flight deck doors provide the pressure compensation by being vented or swinging open to equalize the pressure between the cabin and the flight deck. The direction that the door opens is often driven by this decompression requirement, especially where the door itself provides the surface area needed for safe venting. There are also geometric considerations regarding which way the door opens. Some flight deck floors are not at the same level as the main cabin, which can impact the direction the door opens. These examples illustrate just a few of the various factors that can impact the design and configuration of flight deck doors. It would be inappropriate to assess FAA's judgments in this regard from only the narrow lens of flight deck security, and wrong to conclude that FAA's balancing of competing considerations presents a substantial and specific danger to public safety.

² OIG's report of its audit is available at <https://www.oig.dot.gov/library-item/35800>. The two recommendations that OIG views as open are Nos. 3 and 4. Recommendation No. 3 states: "Publish an FAA Notice to inspectors that communicates the existence of AC 120-110 and RTCA Report DO-329, highlights the blocking methods orchestrated by the Special Committee, and directs inspectors to communicate this information to the carriers they oversee." Recommendation No. 4 states: "Require air carriers to conduct a Safety Risk Assessment (under FAA's Safety Management System) of their current secondary barrier methods using all information from the 2011 RTCA report on secondary barriers, either as a stand-alone Notice or incorporated into another Notice recommended above." As explained in FAA's comments appended to the OIG report, FAA non-concurred with Recommendation No. 4 and partially concurred with Recommendation No. 3, proposing an alternative action.

Allegation: FAA failed to require aircraft operators to implement installed physical secondary barrier systems, which function as another layer of protection between the passenger area and the flight deck.

To be clear, there are no laws, rules, or regulations requiring the installation of physical secondary barriers on existing aircraft. Accordingly, FAA has not failed to implement such a requirement. FAA does require use of a secondary barrier system to address flight deck door transitions. However, a secondary barrier system can consist of installed physical barriers, as well as improvised and human barriers. The regulations address this subject by requiring a means for the pilots to view the area outside the flight deck and to only open the flight deck door when it is safe to do so.³

The FAA Reauthorization Act of 2018 (P.L. 115-254), Section 336, requires FAA to issue an order mandating installation of a physical secondary flight deck barrier on *newly manufactured* passenger airplanes entering part 121 service.⁴ This provision is subject to the Administrative Procedure Act and therefore FAA must follow the rulemaking process to implement the requirement. Based on a review of prior work regarding secondary flight deck barriers, it was clear that much of the information and details necessary to adopt a regulatory standard and the associated guidance material were not yet available. FAA determined that use of an Aviation Rulemaking Advisory Committee (ARAC) working group would be the most effective way to obtain the information necessary to develop the rule. The ARAC working group produced recommendations that FAA is using to prepare a Notice of Proposed Rulemaking (NPRM), with an announced publication target of April 2021.

Unfortunately, some have misconstrued the statutory requirement for FAA to mandate physical secondary flight deck barriers on new aircraft, and have suggested that a retrofit of the *existing fleet* is required. This is an erroneous interpretation of the statute, which states expressly that the requirement applies to “each new aircraft that is manufactured for delivery to a passenger air carrier...operating under the provisions of part 121....” Congress itself continues to propose legislation that would mandate a retrofit, further confirming that such action is not required by existing law. FAA does not have data indicating any relative increase in security from a mandatory retrofit would be justified in light of the additional costs and potential to take resources away from other important safety initiatives.

Section 1961 of the FAA Reauthorization Act also required TSA (in conjunction with FAA) to assess threats to flight deck security and safety regarding unauthorized access. The report is classified but did not identify the need for any design changes.

Inasmuch as FAA is working to implement the statutory mandate under Section 336, and in light of the report under Section 1961, it would not be appropriate to conclude that FAA’s actions with respect to mandating secondary barrier systems present a substantial and specific danger to public safety.

³ See 14 CFR §§ 121.584 and 121.587.

⁴ The Act requires that the FAA adopt a rule by October 5, 2019. Work on this rule is still in process.

TIMELINE

- June 20, 2019—FAA tasked ARAC to provide information and recommendations to expedite implementation of Section 336. To handle this tasking, ARAC established the Flight Deck Secondary Barrier Working Group, which includes industry partners, to develop the best way forward in implementing the statutory mandate.
- March 20, 2020—FAA received the Flight Deck Secondary Barrier Working Group Report.
- Currently—FAA is working to prepare a NPRM, and announced in the Spring 2020 Unified Agenda a publication target of April 2021..



**U.S. Department of
Transportation**

**Office of the Secretary
of Transportation**

GENERAL COUNSEL

1200 New Jersey Avenue S.E.
Washington, D.C. 20590

March 3, 2023

SUPPLEMENTAL REPORT FOR THE OFFICE OF SPECIAL COUNSEL

FROM: Ron Jackson
Senior Counsel for Oversight, U.S. Department of Transportation

TO: Olare Nelson, Esq.
Attorney, U.S. Office of Special Counsel

SUBJECT: Supplemental Response to Office of Special Counsel (OSC)
Whistleblower Disclosure: DI-16-002046 (Federal Aviation
Administration)

The U.S. Department of Transportation (DOT) is providing additional information in response to questions posed by the Office of Special Counsel (OSC) following OSC's review of DOT's Report of Investigation (ROI) in the above-referenced matter. DOT previously provided separate responses to these questions to OSC. OSC has requested that DOT consolidate its responses into one supplemental report. Depending on the particular question, the information included in this supplemental report was provided by DOT's Federal Aviation Administration (FAA), DOT's Office of Inspector General (OIG), or DOT's Office of the Secretary (OST). This report lists each OSC question, followed by DOT's response; it also identifies whether the responsive information was provided by FAA, OIG, or OST. This report also includes updates to DOT's previous responses where appropriate.

OSC Request: *An unredacted copy of the 2011 Radio Technical Commission on Aeronautics (RTCA) report entitled "Aircraft Secondary Barriers and Alternative Flight Deck Security Procedures."*

Response (Provided by FAA): There is no unredacted version of this report. Rather, there was some sensitive information that RTCA ultimately decided not to include in any version of the report.

OSC Request: *An explanation identifying what specifically FAA disagreed with in the 2011 RTCA report and its justifications for that disagreement. (This disagreement is referenced in the FAA response to the OIG report on May 23, 2017.)*

Response (Provided by FAA): The FAA did not agree with all of the findings and recommendations contained in the 2011 Radio Technical Commission on Aeronautics (RTCA) report entitled *Aircraft Secondary Barriers and Alternative Flight Deck Security Procedures* (RTCA Report). FAA Advisory Circular 120-110, *Aircraft Secondary Barriers and Alternate Flight Deck Security Procedures* (attached), contains the FAA's position on the topic. To the extent the guidance contained in AC 120-110 does not align with the RTCA recommendations and conclusions, it represents the FAA's disagreement with the RTCA report.

Specifically, the AC allows Part 121 operators to continue to rely on *human* secondary barriers as a method of secondary flight deck security, and an acceptable means of compliance with 14 C.F.R. § 121.584. The 2011 RTCA report tends to emphasize the use of *installed* secondary barriers or *improvised, non-installed barriers*, whereas the FAA Advisory Circular treats all three options equally. The 2011 RTCA report recommended against allowing human secondary barriers as a method of secondary flight deck security. AC 120-110, in contrast, identifies the use of human secondary barriers as an acceptable means of compliance for flight deck security procedures.

When the 2011 RTCA report was issued, there had been no breaches of an aircraft flight deck since 9/11, despite Part 121 carriers' routine use of human secondary barriers. As of the date of this report, there still have not been any breaches of Part 121 aircraft flight decks, despite the continued use by many Part 121 carriers of human secondary barriers.

OSC Request: *A full, unredacted copy of the 2017 Department of Transportation (DOT) Office of Inspector General (OIG) audit report entitled, "FAA Has Taken Steps to Identify Flight Deck Vulnerabilities but Needs to Enhance Its Mitigation Efforts."*

Response (Provided by OIG): By email dated April 29, 2022, DOT provided OSC with a password-protected, unredacted copy of this report. As DOT advised in that email, the report includes Sensitive Security Information subject to 49 CFR Parts 15 and 1520, including the need to protect the document from unauthorized disclosure.

OSC Request: *At the time OSC received FAA's report of investigation, two of DOT OIG's recommendations remained open. Within a few months of FAA's report to OSC, DOT OIG closed the remaining two open recommendations (i.e., those with which FAA had disagreed). Please explain the basis for closing the recommendations. If the recommendations were closed because DOT OIG concluded that FAA had satisfactorily addressed the issues, please explain what actions FAA took and why DOT OIG believed those actions resolved the issues.*

Response (Provided by OIG): The following is the text of OIG's response, previously provided to OSC.

The actions listed below outline our [OIG's] efforts (in addition to several phone calls and discussions with the FAA audit POC) to convince the Agency that the recommendations warranted action, but ultimately FAA stood its ground and provided justification why the recommendations should not be implemented. We determined we would close the recommendations because further discussions and efforts would not result in concurrence on these issues.

Recommendation 3. Publish an FAA Notice to inspectors that communicates the existence of AC 120-110 and RTCA Report DO-329, highlights the blocking methods orchestrated by the Special Committee, and directs inspectors to communicate this information to the carriers they oversee.

FAA Original Response (May 23, 2017): The FAA partially concurs with recommendation 3 and provides an alternate course of action. We do not agree to publish an FAA Notice to inspectors that communicates Advisory Circular (AC) 120-110 because, as a standard practice, ACs are disseminated to all aviation safety inspectors. As an alternate action, we will evaluate by January 31, 2018 the need for further dissemination of the information and notice to the aviation community.

OIG Response: Request that FAA strengthen its planned actions so that its evaluation does not focus solely on whether there is a need to further disseminate this information but rather on the most effective way to ensure that the entire aviation community—not just the FAA inspector workforce—is aware of the findings in the RTCA report and FAA's Advisory Circular.

FAA Reconsidered Response (August 15, 2017): After further evaluation, the agency believes there is no need for the dissemination of additional information. The importance of proper flight deck security procedures remains highly salient in the airline industry.

OIG/FAA Discussion (11 August 2020): At the request of OST, OIG reached out to FAA POC on this audit to discuss the status of open recommendations and FAA activities since the report was issued. FAA continued to non-concur with this recommendation on the following points:

- 1) Industry awareness of the requirements in 14 CFR § 121.584 to have cockpit security procedures in place to view the area outside the flightdeck door and secure the flightdeck during cockpit transitions was established sufficiently after September 11, 2001. At least 28 air carrier representatives participated in or were represented by industry associations during RTCA testing and were aware of the RTCA findings and recommendations. While FAA and air carriers may not agree with certain findings published in RTCA DO-329, all carriers were aware and developed their cockpit procedures with the findings in mind. OIG may have encountered some air carrier representatives or FAA inspectors that did not have intimate knowledge of the report, but that does not mean that air carriers were unaware of this information while these security procedures were developed after 9/11. FAA led the development of these air carrier procedures and security

measures as the TSA was being stood up. FAA continues to believe that air carrier procedures and recurrent training are sufficient to counter the potential threat of a cockpit breach - there have been no incursions since the procedures were put in place and there is no data to support additional awareness measures to air carriers or inspectors.

- 2) Air carriers do not physically test the effectiveness of their procedures after they have been approved by FAA because participants could be injured by those kinds of tests. Therefore, carriers rely on FAA's guidance and recommended procedures to ensure this important security component is sufficient. Again, there is no data which says the procedures are not working or need to be re-evaluated for effectiveness.
- 3) FAA continues to work on rulemaking to address the requirements required by the FAA Reauthorization Act of 2018 for all newly manufactured aircraft to have secondary cockpit barriers installed. FAA hopes to have a Notice of Proposed Rulemaking (NPRM) issued by the end of the year on this requirement, although the final outcome of this effort is unknown. If there is a Final Rule published, FAA will revise AC 120-110 (Aircraft Secondary Barriers and Alternate Flight Deck Security Procedures).

OIG Response (August 11, 2020): We agree to close the recommendation.

Recommendation 4. Require air carriers to conduct a Safety Risk Assessment (under FAA's Safety Management System) of their current secondary barrier methods using all information from the 2011 RTCA report on secondary barriers, either as a stand-alone Notice or incorporated into another Notice recommended above.

FAA Original Response (May 23, 2017): The FAA non-concurs with recommendation 4. Air carriers have conducted a safety risk assessment as it is covered by their safety management system to comply with 14 CFR § 121.584. In addition, and as stated above, we do not agree with all the findings in the RTCA report and therefore, we do not agree to use "all information from the 2011 RTCA report."

OIG Response: Request that FAA reconsider its response for recommendation.

FAA Reconsidered Response (August 15, 2017): Non-concur. The agency stands by the original response. During repeated conversations with the audit team, various agency subject matter experts and Flight Standards management expressed disagreement with several recommendations in the RTCA report. For example, the report states that airlines should ensure that passengers are clear of a specified distance from the flight deck door, as stated on page 12 of the OIG's final report. That distance would require the removal of the entire business class section and parts of the coach class section of some aircraft. With zero flight deck breaches since flight deck door fortification, this guidance is unreasonable. The fact that the agency agrees with, and references, much of the RTCA report, that does not constitute universal concurrence from a policy standpoint.

OIG/FAA Discussion (11 August 2020): At the request of OST, OIG reached out to FAA POC on this audit to discuss the status of open recommendations and FAA activities since the report was issued. FAA continued to non-concur with this recommendation on the following points:

- 1) Industry awareness of the requirements in 14 CFR § 121.584 to have cockpit security procedures in place to view the area outside the flightdeck door and secure the flightdeck during cockpit transitions was established sufficiently after September 11, 2001. At least 28 air carrier representatives participated in or were represented by industry associations during RTCA testing and were aware of the RTCA findings and recommendations. While FAA and air carriers may not agree with certain findings published in RTCA DO-329, all carriers were aware and developed their cockpit procedures with the findings in mind. OIG may have encountered some air carrier representatives or FAA inspectors that did not have intimate knowledge of the report, but that does not mean that air carriers were unaware of this information while these security procedures were developed after 9/11. FAA led the development of these air carrier procedures and security measures as the TSA was being stood up. FAA continues to believe that air carrier procedures and recurrent training are sufficient to counter the potential threat of a cockpit breach - there have been no incursions since the procedures were put in place and there is no data to support additional awareness measures to air carriers or inspectors.
- 2) Air carriers do not physically test the effectiveness of their procedures after they have been approved by FAA because participants could be injured by those kinds of tests. Therefore, carriers rely on FAA's guidance and recommended procedures to ensure this important security component is sufficient. Again, there is no data which says the procedures are not working or need to be re-evaluated for effectiveness.
- 3) FAA continues to work on rulemaking to address the requirements required by the FAA Reauthorization Act of 2018 for all newly manufactured aircraft to have cockpit barriers installed. FAA hopes to have a Notice of Proposed Rulemaking (NPRM) issued by the end of the year on this requirement, although the final outcome of this effort is unknown. If there is a Final Rule published, FAA will revise AC 120-110 (Aircraft Secondary Barriers and Alternate Flight Deck Security Procedures).

OIG Response (August 11, 2020): We agree to close the recommendation.

OSC Request: *A copy of the March 2020 Aviation Rulemaking Advisory Committee (ARAC) working group recommendations regarding implementation of section 336 of the FAA Reauthorization Act of 2018 (P.L. 115-254), which requires FAA to issue an order*

requiring the installation of a secondary cockpit barriers on new aircraft. Please also explain the apparent the delay in any resultant Notice of Proposed Rulemaking (NPRM).

Response (Provided by OST): The requested recommendations are located online at https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information?documentID=4342. DOT/FAA took time to seek the ARAC's recommendations prior to preparing a proposed rule in order to get advice and recommendations on the most effective ways to implement the law. The resulting draft Notice of Proposed Rulemaking (NPRM) had been under review within the Office of Information and Regulatory Affairs as of March 15, 2022. On August 1, 2022, FAA published a proposed rule in that proceeding. The NPRM can be found online at <https://www.federalregister.gov/documents/2022/08/01/2022-16443/installation-and-operation-of-flightdeck-installed-physical-secondary-barriers-on-transport-category>. The comment period closed on September 30. FAA received 63 comment letters during the comment period, and FAA is currently reviewing the comments submitted.

OSC Request: *The report is also required by law to include a description of the conduct of the investigation and a summary of evidence obtained from the investigation. 5 U.S.C. § 1213(d). Please provide OSC with this information.*

Response (Provided by FAA): Both subject matter experts (SMEs) and counsel participated in FAA's investigation into this matter. FAA SMEs who had closely examined the issues of secondary barriers and unauthorized access to a flight deck—technical experts employed within FAA's Aviation Safety division (AVS)—reviewed the allegations and provided input for FAA's report to OSC. Some (but not all) of these SMEs also participated in the RTCA study, which culminated in the 2011 RTCA Report. A number of these SMEs also participated in meetings and had conversations with RTCA members and interagency security partners about the issues addressed in the 2011 RTCA study, and/or worked on FAA Advisory Circular 120-110. FAA's Office of the Chief Counsel also reviewed the allegations and provided input for the report. Prior to transmission to OSC, the report cleared FAA leadership and then came to the Office of the Secretary for the final review process and transmission to OSC.

OSC Request: *The FAA report cites a classified report created pursuant to Section 1961 of the FAA Reauthorization Act in support of its decision not to require installed physical barriers in pre-existing aircraft. Apart from a statement that the report identified no need for any design changes, we have virtually no information on this report and why it should be relied upon to support the status quo. Please provide us with sufficient information on the points at issue to be able to evaluate the reasonableness of the agency's reliance on this report in its assertion that there is no substantial and specific danger to public safety.*

Response (Provided by FAA): DOT/FAA attaches a memorandum it has prepared for OSC in response to this question.

ATTACHMENT 1



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

/s/ John Barbagallo
Assistant Director, Flight Standards Service

ATTACHMENT 2



Federal Aviation Administration

Memorandum

Date: February 23, 2023
To: [REDACTED] Chief Scientific & Technical Advisor, Advanced Cabin Safety, AIR-600
From: [REDACTED] Assistant Chief Counsel for Ethics and Compliance, AGC-900
Subject: Attachment for Supplemental Report to OSC: DI-16-2046

As directed by Section 1961 of the Federal Aviation Administration (FAA) Reauthorization Act of 2018, the Transportation Security Administration (TSA), in consultation with FAA, produced an assessment regarding threats to the cockpit doors and flight decks onboard commercial aircraft. The FAA and TSA updated their assessment in November 2021, and did not identify any new or significant threats to the flight decks of commercial aircraft that were not sufficiently mitigated by the reinforced cockpit doors and flight crew procedures implemented after the September 11, 2001 terrorist attacks. Foreign terrorist organizations likely remain interested in targeting aviation. The FAA and TSA continue to closely monitor emerging threats to commercial aircraft to inform suitable mitigation measures.