



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

AD No.: 2024-05-03

Effective Date: 21 Jul. 2024

The following Brazilian Airworthiness Directive (AD), issued by the Agência Nacional de Aviação Civil (ANAC) in accordance with provisions of Chapter IV, Title III of Código Brasileiro de Aeronáutica - Law No. 7,565 dated 19 December 1986 - and Regulamento Brasileiro da Aviação Civil (RBAC) 39, applies to all aircraft registered in the Registro Aeronáutico Brasileiro. No person may operate an aircraft to which this AD applies, unless it has previously complied with the requirements established herein.

AD No. 2024-05-03 - (BOEING) / 39-1554.

APPLICABILITY:

(a) This Airworthiness Directive (AD) applies to BOEING airplane models 757-200, 767-200, 767-300 e 767-300F, all serial number

CANCELLATION / REVISION:

Not applicable.

REASON:

The reason for this AD is the finding of potential interference in radio altimeters from wireless broadband operations in the 3,300 MHz to 3,700 MHz frequency band (5G C-Band). During approach, landings, and go-arounds, as a result of this interference, certain airplane systems may not properly function, resulting in increased flightcrew workload while on approach with the flight director, autothrottle, or autopilot engaged. The increased flightcrew workload could lead to reduced ability of the flightcrew to maintain safe flight and landing of the airplane.

Since this condition may occur in other airplanes and affects flight safety, corrective action is required. Thus, sufficient reason exists to mandate compliance with this AD in the indicated time limit.

REQUIRED ACTION:

Airplane Flight Manual (AFM) Revision

COMPLIANCE:

Required as indicated below, unless already accomplished.

(b) Airplane Flight Manual Revision

(1) For airplanes identified in paragraph **(a)** of this AD, that do not meet

the criteria for a “radio altimeter tolerant aircraft”, as established by PORTARIA No. 14.318/SAR, de 10 de abril de 2024, or further Portaria that supersedes it, within 10 days after the effective date of this AD, revise the Limitations Section of the existing AFM to include the following information:

Radio Altimeter 5G C-Band Interference, Approach, Landing, and Go-Around

Due to the presence of 5G C-Band wireless broadband interference, the following limitations are required to dispatch or release to airports, and approach, landing and go-around on runways, in the Brazilian airspace.

Approach, Landing, and Go-Around

Operators must use the **Radio Altimeter 5G C-Band Interference, Approach, Landing, and Go-Around** procedure.

(2) For airplanes identified in paragraph **(a)** of this AD, that do not meet the criteria for a “radio altimeter tolerant aircraft”, as established by PORTARIA No. 14.318/SAR, de 10 de abril de 2024, or further Portaria that supersedes it, within 10 days after the effective date of this AD, revise the Operating Procedures Section of the existing AFM to include the following information:

Radio Altimeter 5G C-Band Interference, Approach, Landing, and Go-Around

Landing Distance Calculations

For airplanes with Yaw Damper Stabilizer Trim Module (YSM), adjust the operational (time of arrival) landing distance for manual speedbrake deployment if MAX MANUAL braking is required. When using autobrakes, no correction is needed since the calculations already take into account that manual speedbrake deployment may be needed.

ILS Approaches

For ILS approaches other than CAT I AR, CAT II, and CAT III, disconnect the autopilot and autothrottle, and place both flight director switches to OFF prior to glideslope intercept.

Non-Precision Approaches

Non-precision instrument approaches can be conducted using VNAV or V/S with flight directors, autopilot, and autothrottle to published minimums.

During Landing

For airplanes with Yaw Damper Stabilizer Trim module (YSM), if MAX MANUAL braking is required, manually deploy the speedbrake if it does not deploy automatically.

During Go-Around and Missed Approach

If the flight director is ON, cycle to OFF, then ON, as needed.

If the flight director is OFF, turn ON, as needed.

NOTE 1: The AFM alteration required by this AD may be accomplished by inserting a copy of this AD into the Aircraft Flight Manual.

NOTE 2: For this AD, a “radio altimeter tolerant aircraft” is the one for which ANAC accepts that the combination airplane-radio altimeter is sufficient to demonstrate tolerance to the limits specified in PORTARIA No. 14.318/SAR, de 10 de

abril de 2024, or further Portaria that supersedes it.

(3) For airplanes identified in paragraph **(a)** of this AD, that are defined as “radio altimeter tolerant aircraft”, according to the established by PORTARIA No. 14.318/SAR, de 10 de abril de 2024, or further Portaria that supersedes it, no action is required by paragraph **(b)**.

(c) Terminating Action to the AFM Revision

Modification of a “non-radio altimeter tolerant aircraft” to a “radio altimeter tolerant aircraft”, according to PORTARIA No. 14.318/SAR, de 10 de abril de 2024, or further Portaria that supersedes it, terminates the AFM revision required by paragraphs **(b)(1)** and **(b)(2)** of this AD. After modification to a “radio altimeter tolerant aircraft”, according to PORTARIA No. 14.318/SAR, de 10 de abril de 2024, or further Portaria that supersedes it, remove the AFM revision required by paragraphs **(b)(1)** and **(b)(2)** of this AD.

(d) Compliance with PORTARIA No. 14.318/SAR, de 10 de abril de 2024, or further Portaria that supersedes it.

For the purpose of this AD, the acceptance of the combination airplane - radio altimeter as a “radio altimeter tolerant aircraft” depends on evidence provided to demonstrate the tolerance limits established in PORTARIA No. 14.318/SAR, de 10 de abril de 2024, or further Portaria that supersedes it. These data should be submitted to ANAC through the e-mail 5g@anac.gov.br. The acceptance by ANAC of the airplane-radio altimeter combination as "radio altimeter tolerant aircraft" will be indicated through an ANAC Ofício to the operator or manufacturer, or an ANAC Portaria listing the configurations accepted by ANAC as "radio altimeter tolerant aircraft".

(e) Reporting of events

Report any anomalies in the radio altimeter to ANAC through the email 5g@anac.gov.br, providing the following information:

- (i)** Date
- (ii)** Aircraft and radio altimeter model
- (iii)** Phase of flight
- (iv)** Location where the anomaly occurred
- (v)** Transient or permanent anomaly

(f) Alternative methods of compliance (AMOCs).

A different method or a different compliance time from the requirements of this AD may be used if approved by the Manager of the Continuing Airworthiness Technical Branch (GTAC) of ANAC.

Record compliance with this AD in the applicable maintenance log book.

CONTACT:

For additional technical information, contact:

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APPROVAL:

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NOTA: Original in Portuguese language signed and available in the files of the Continuing Airworthiness Technical Branch (GTAC) of the National Civil Aviation Agency (ANAC).

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