

**NOTICE OF PROPOSED REGULATION  
BRAZILIAN AIRWORTHINESS DIRECTIVES**

**REPÚBLICA FEDERATIVA DO BRASIL  
AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – ANAC  
Gerência Geral de Certificação de Produto Aeronáutico**

**Reference:** NPR/AD 2023-777-01

**Date:** 28 Dec. 2023

*In accordance with the provisions of RBAC 11, The Continuing Airworthiness Technical Branch (GTAC) is proposing the issuance of a Brazilian Airworthiness Directive applicable to the aeronautical product referred below.*

*All the persons interested may send their comments until the date specified in item 2, indicating the **Reference** above, to the following address:*

*National Civil Aviation Agency (ANAC) – Continuing Airworthiness Technical Branch (GTAC)  
Rua Doutor Orlando Feirabend Filho, nº 230  
Centro Empresarial Aquáriu - Torre B - 14 o ao 18 o andares  
Parque Residencial Aquáriu  
12246-190 – São José dos Campos – SP - Tel.: (12) 3203-6600 - E-mail: pac@anac.gov.br.*

**1. Proposer:** Continuing Airworthiness Technical Branch (GTAC).

**2. Comments:** Must be received until 31 Mar. 2024.

**APPLICABILITY:**

- (a) This Airworthiness Directive (AD) applies to BOEING airplanes models 777-200, 777-300ER, all serial numbers.

**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). As a result of this interference, certain airplane systems may not properly function, such as the pitch control laws, including those that provide tail strike protection. Anomalies in radio altimeters caused by interference, such as missing or erroneous radio altimeter data, in combination with multiple flight deck effects, could lead to loss of continued safe flight and landing.

Since this condition may occur in other airplanes and affects flight safety, corrective action is required. Thus, sufficient reason exists to request 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 airplanes”, as established by PORTARIA Nº 13.365/SAR, de 14 de dezembro de 2023, within 10 days after the effective date of this AD, revise the Limitations Section of the existing AFM to include the following information:

**Approaches and Landings in the Presence of Radio Altimeter 5G C-Band Interference**

Due to the presence of 5G C-Band wireless broadband interference, dispatching or releasing to airports, and approaches or landings on runways, in the Brazilian airspace is prohibited.

**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 the purpose of this AD, a “radio altimeter tolerant airplane” is the one for which ANAC accepts that the combination airplane-radio altimeter demonstrates tolerance to the limits specified in this PORTARIA N<sup>o</sup> 13.365/SAR, de 14 de dezembro de 2023.

(2) For airplanes identified in paragraph (a) of this AD, that are defined as “radio altimeter tolerant airplanes”, according to the established by PORTARIA N<sup>o</sup> 13.365/SAR, de 14 de dezembro de 2023, no action is required.

**(c) Terminating Action to the AFM Revision**

Modification of a “non-radio altimeter tolerant airplane” to a “radio altimeter tolerant airplane”, according to PORTARIA N<sup>o</sup> 13.365/SAR, de 14 de dezembro de 2023, terminates the limitations required by paragraphs (b)(1) of this AD. After modification to a “radio altimeter tolerant airplane”, according to PORTARIA N<sup>o</sup> 13.365/SAR, de 14 de dezembro de 2023, remove the AFM revision required by paragraphs (b)(1) of this AD.

**(d) Compliance with PORTARIA N<sup>o</sup> 13.365/SAR, de 14 de dezembro de 2023.**

For the purpose of this AD, the acceptance of the combination airplane-radio altimeter as a “radio altimeter tolerant airplane” depends on the data provided to demonstrate the tolerance limits established in PORTARIA N<sup>o</sup> 13.365/SAR, de 14 de dezembro de 2023. These data should be submitted to ANAC through [5g@anac.gov.br](mailto:5g@anac.gov.br).

**(e) 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.

**(f) Additional information**

For questions or further information, please contact [pac@anac.gov.br](mailto:pac@anac.gov.br)