10-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 21

[Docket No. FAA-2023-0938]

Proposed Policy Statement; Demonstration of Radio Altimeter Tolerant Aircraft

AGENCY: Federal Aviation Administration, DOT

ACTION: Notification of availability; request for comments

SUMMARY: This document announces the availability of a draft Policy Statement PS-AIR-600-39-01, Demonstration of Radio Altimeter Tolerant Aircraft. The FAA invites public comment on PS-AIR-600-39-01.

DATES: The FAA must receive comments on this document on or before [INSERT DATE 30 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments identified by docket number FAA-2023-0938 using any of the following methods:

- Federal eRulemaking Portal: Go to www.regulations.gov and follow the instructions for submitting comments electronically.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, 1200 New Jersey Avenue, SE, Room W12-140, West Building Ground Floor, Washington, DC, 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: (202) 493-2251.

Docket: Background documents or comments received may be read at www.regulations.gov at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at

1200 New Jersey Avenue, SE, Washington, DC, between 9 a.m., and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Barbara Clark, Aviation Safety Specialist, Avionics and Electrical Systems Section, 800 Independence Ave SW, DC 20591; telephone: 817-222-5390; email: operationalsafety@faa.gov.

SUPPLEMENTARY INFORMATION:

Privacy: The FAA will post all comments it receives, without change, to www.regulations.gov, including any personal information the commenter provides. Using the search function of the docket website, anyone can find and read the electronic form of all comments received into any FAA docket, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). DOT's complete Privacy Act Statement can be found in the Federal Register published on April 11, 2000 (65 FR 19477-19478), as well as at https://DocketsInfo.dot.gov.

Comments Invited

The FAA invites interested parties to take part in the development of the proposed policy statement by sending written comments to an address listed under ADDRESSES. Include Docket No. FAA-2023-0938; Policy No. PS-AIR-600-39-01 at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal

information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed policy.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this notice contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this notice, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this notice. Submissions containing CBI should be sent to the individual listed under FOR FURTHER INFORMATION CONTACT. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this notice.

Background

The current performance standards for radio altimeters (also known as radar altimeters) are based on the presumption that no occupancy of an adjacent radio frequency spectrum would cause interference with radio altimeters. During 2021, the radio frequency operating environment surrounding radio altimeters substantially changed when wireless telecommunication service providers began offering 5G C-Band services near the 4.2 – 4.4 GHz band, which is reserved for aviation radio altimeters. The FAA subsequently determined that radio altimeters cannot be relied upon to perform their intended function if they experience interference from 5G wireless broadband operations in the C-Band.

Deployment of the new 5G C-Band services prompted the FAA to address the risks posed by radio frequency (RF) interference to radio altimeters. On December 7, 2021, the FAA issued AD 2021-23-12[1] for transport and commuter category airplanes equipped with a radio altimeter and AD 2021-23-13[2] for helicopters equipped with a radio altimeter. AD 2021-23-12 and AD 2021-23-12 prohibit certain flight operations requiring radio altimeter data when flying in the presence of 5G C-Band interference as identified by Notices to Air Missions (NOTAMs). In response to AD 2021-23-12, the aviation industry developed a method to show compatibility with 5G emissions in the United States national airspace system for the initial 5G deployment, which was limited to 3.7-3.8 GHz, and the 5G spurious emissions in the radio altimeter band (4.2-4.4 GHz). The FAA accepted this method as support for proposals for alternative methods of compliance (AMOCs) with AD 2021-23-12 and AD 2021-23-13. These AMOCs used standardized assessment parameters, values, and methods to estimate an installed altimeter system protection radii or distance. Aircraft with an altimeter operating beyond this distance from all 5G base stations would not expect deleterious effects from RF incompatibility and indeed could depend upon the radio altimeter system to fully perform its intended function. These AMOCs were based on interference thresholds of specific individual radio altimeter transceivers. That is, each transceiver was tested to benchmark their performance in the presence of out-of-band and in-band C-Band signals. The thresholds were then modified and tailored to installation factors specific to the installed platform (e.g., measured antenna gains and line losses). These values were then used to determine the necessary mitigations to protect the airport airspace most critical for the safety of operations. The mitigations included actions by wireless providers as well as flight

[1] Amendment 39-21810, 86 FR 69984, December 9, 2021.
[2] Amendment 39-21811, 86 FR 69992, December 9, 2021.

limitations imposed by the FAA for the airspace areas identified by NOTAM, unless operating under an approved AMOC.

On January 6, 2023, the FAA issued a notice of proposed rulemaking (NPRM) proposing to supersede AD 2021-23-12.[3] On April 5, 2023, the FAA issued an NPRM proposing to supersede AD 2021-23-13.[4] The flight limitations in the new proposed ADs would depend on whether an aircraft has a radio altimeter that demonstrates certain tolerances using a method approved by the FAA.

Proposed Policy Statement

This proposed policy would provide guidance for operators and manufacturers to demonstrate an aircraft is a radio altimeter tolerant aircraft, under the proposed definition in the NPRMs.

[3] Docket No. FAA-2022-1647, 88 FR 1520 (January 11, 2023).
[4] Docket No. FAA-2023-0668, 88 FR 21931 (April 12, 2023).

You may review the proposed policy statement at www.regulations.gov in Docket No. FAA-2023-0938; or on the FAA's website at www.faa.gov/aircraft/draft_docs/.

Issued on May 2, 2023.

Michael Linegang, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.
[FR Doc. 2023-09622 Filed: 5/5/2023 8:45 am; Publication Date: 5/8/2023]