

Safety Information Bulletin

Operations

SIB No.: 2021-16R1

Issued: 19 June 2023

Subject: Operations to aerodromes located in United States with potential risk of interference from 5G ground stations

Revision:

This SIB revises EASA SIB 2021-16 dated 17 December 2021.

Ref. Publications:

- Federal Aviation Administration (FAA) Special Airworthiness Information Bulletin [AIR-21-18R3](#) dated 24 May 2023.
- FAA Aeronautical Information Publication (AIP) Part 3 (Aerodromes) [AD 1.1](#) (Aerodrome availability) Section 1 (General Regulations Concerning Airport Use) – amendment date 20 April 2023.
- FAA AD [2023-10-02](#) for Transport and Commuter airplanes dated 23 May 2023, superseding FAA AD [2021-23-12](#) dated 09 December 2021.
- FAA AD NPRM Docket number [FAA-2023-0668](#) expected to supersede FAA AD [2021-23-13](#) for various Helicopters dated 09 December 2021.
- Commission Regulation (EU) No [965/2012](#) dated 05 October 2012 (hereafter referred to as the 'Air OPS' Regulation).
- [EASA Position](#) regarding FAA AD 2023-10-02 – Not eligible for adoption.

Applicability:

Aircraft operators having their principal place of business in one of the EASA Member States (MS).

Description:

Telecommunication providers have been deploying 5G ground stations (or 5G base stations) in various States and regions around the world. These 5G ground stations may be operating in the C-band, at frequencies that are close to the frequencies utilised by the radio altimeters (or radar-altimeter) installed on many aircraft. This has led to concerns of potential interference of radio altimeters from 5G ground stations causing anomalous radio altimeter behaviour.

EASA is working closely with aircraft manufacturers, national airworthiness authorities and national spectrum regulators, to assess the risk of 5G/radio altimeter interference in EU airspace, aircraft susceptibility to such interference, the effect of such interference on aircraft systems, and the subsequent effect on the safety of flight operations. These assessments are done based on the knowledge available on actual radio-frequency conditions in the context of 5G deployment in the EU. At this stage, EASA has not identified conclusive evidence of an unsafe condition due to 5G interference on aircraft radio altimeters in EU airspace.

This is information only. Recommendations are not mandatory.



However, EASA acknowledges the FAA's assessment of the specific safety risk in the contiguous U.S.A. airspace (i.e. U.S.A. airspace, excluding Alaska, Hawaii and U.S.A. offshore insular areas), due to the potential for higher power emissions from 5G ground stations.

Based on its own initial safety assessment, the FAA issued Airworthiness Directives (ADs) 2021-23-12 and 2021-23-13 (see links above), applicable to operators based in the U.S.A. and operators of aircraft registered in the U.S.A., operating in the contiguous U.S.A. airspace. In addition, FAA issued Notices to Air Missions (NOTAMs) starting from the end of 2021, prohibiting all operators operating in the contiguous U.S.A. airspace to conduct certain operations unless alternative methods of compliance (AMOCs) to the AD are approved by the FAA.

More recently, based on further analysis and availability of data and reports, the FAA issued AD 2023-10-02, superseding FAA AD 2021-23-12, and introducing new/revised limitations, depending on aeroplane configuration and type of operations. In accordance with FAA AD 2023-10-02, starting from July 2023, the safety risk associated to 5G/radio altimeter interference will be assumed to affect the whole contiguous U.S.A. airspace, and the system described by AD 2021-23-12, that identifies specific geographical risk areas through the issuance of NOTAMs, will be phased out by the FAA.

The FAA also issued an AD Notice of proposed Rulemaking (NPRM), Docket number FAA-2023-0668, expecting to supersede FAA AD 2021-23-13, to anticipate similar prohibition for various helicopters.

The FAA AD 2023-10-02, and the NPRM, address situations specific to operations in contiguous U.S.A. airspace. While these documents do not impose any requirements on non-U.S.A. registered aircraft operating into the United States, it is expected that equivalent requirements will be applied on those aircraft through airspace measures.

EASA determined that the referenced FAA ADs are not eligible for adoption and is currently not planning to issue similar EASA ADs for products for which it acts as State of Design Authority.

EASA continues to monitor the situation and, based on further assessment, this SIB may be revised, as necessary.

This SIB is revised following the issuance of the FAA AD 2023-10-02 and the amendment of the FAA AIP, and to remove certain recommendations, which are no longer considered relevant in the context of operations in the U.S.A. airspace. This SIB is revised in its entirety, and no revision bars are used.

At this time, the safety concern described in this SIB does not warrant the issuance of an operational directive under Regulation (EU) [965/2012](#), Annex II, ARO.GEN.135(c).

This is information only. Recommendations are not mandatory.



Recommendation(s):

It is recommended that aircraft operators:

- Pay particular attention to any information promulgated by U.S.A (e.g. through ADs, NOTAMs, AIPs, Domestic Notices) prohibiting certain instrument approach procedures depending on aircraft radio altimeter configuration. Such prohibitions might significantly affect the approach and landing capability and can be issued without prior notice.

Contact(s):

For further information, contact the EASA Safety Information Section, Certification Directorate,
E-mail: ADs@easa.europa.eu.

This is information only. Recommendations are not mandatory.

