



Interagency Aviation Accident Prevention Bulletin



No. IA APB 22-01

November 10, 2021

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Subject: FAA Release of AIR 21-18: Risk of Potential Adverse Effects on Radio Altimeters

Area of Concern: Flight Safety

Distribution: All Aviation Operations

Discussion: On November 2, 2021, the Federal Aviation Administration (FAA) issued Special Airworthiness Information Bulletin (SAIB) *Risk of Potential Adverse Affects on Radio Altimeters*, informing aircraft manufacturers, radio altimeter manufacturers, operators, and pilots of the planned deployment of wireless broadband networks in the 3700-3980 MHz bands. The deployment is scheduled to begin on December 5, 2021 in the 3700-3800 MHz bands. The FAA is currently collaborating with the Federal Communications Commission (FCC) and the National Telecommunications and Information Administration (NTIA) to assess the need for mitigation beyond the recommended action in the bulletin.

In preparation for the December 2021 wireless network deployment in the 3700-3800 MHz band, the FAA recommends the following actions for operators and pilots.

Operators and Pilots

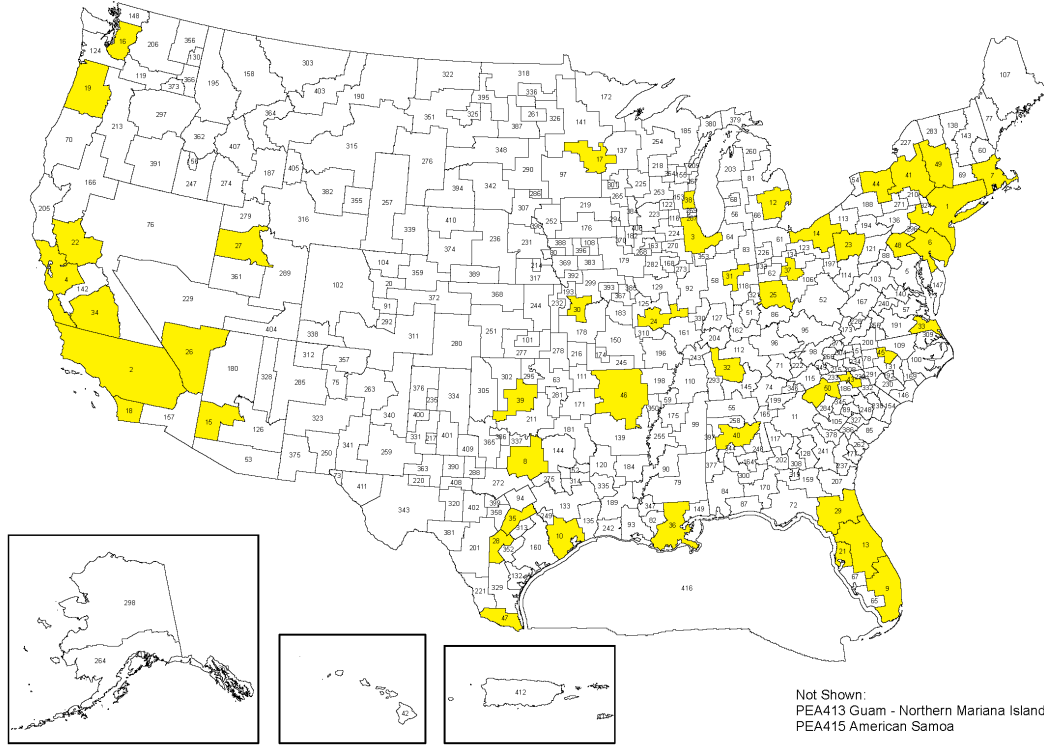
1. Seek information from the manufacturers of the aircraft and the radio altimeter on possible effects of harmful interference due to wireless broadband deployment in the 3700-3800 MHz band and possible pilot interventions.
2. Operators should ensure their pilots are aware of the potential degradation of the radio altimeter capabilities and any means to compensate for in-flight radio altimeter anomalies. Consider both erroneous altimeter readings and loss of altimeter function.
3. Operators should ensure their pilots are aware of the potential degradation to the capabilities of safety systems and other equipment dependent upon radio altimeters and any means to compensate for resulting anomalies. Consider both the loss of function of the safety systems and other dependent systems and the manners in which they may malfunction.
4. Operators and pilots who experience radio altimeter anomalies should notify air traffic controllers as soon as practical. Reports should include as much detail as possible and include information to describe radio altimeter anomalies.

Background

Radio altimeters operate between 4200-4400 MHz. Currently, the FAA's approval process for radar altimeters is based on FAA Technical Standard Order TSO-C87A, Airborne Low-Range Radio Altimeter. TSO-C87A does not provide criteria for compatibility with adjacent band operations, including potential impacts associated with wireless communications system deployments. The Radio Technical Commission for Aeronautics (RTCA) formed a task force to assess the interference impact of wireless broadband operations in the 3700-3980 MHz band on radio altimeters. The RTCA report is under review. The FAA is actively participating in the RTCA/SC-239 committee, which is

developing adjacent band compatible minimum operational performance standards (MOPS) for future radio altimeter designs.

FCC Partial Economic Area (PEA) Boundaries



Note: The highlighted areas on the map above represent the first phase of implementation. Low level flights in these areas are at the highest risk for interference.

For further information, the complete SAIB can be found at [https://rgl.faa.gov/Regulatory_and_Guidance_Library/rgSAIB.nsf/\(LookupSAIBs\)/AIR-21-18?OpenDocument](https://rgl.faa.gov/Regulatory_and_Guidance_Library/rgSAIB.nsf/(LookupSAIBs)/AIR-21-18?OpenDocument)

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