31 May 2018

VIA ELECTRONIC FILING

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Expanding Flexible Use Of The 3.7 GHz to 4.2 GHz Band (GN Docket No. 18-122)

Dear Ms. Dortch,

On behalf of the International Air Transport Association (IATA), I appreciate the opportunity to comment on the Federal Communications Commission (FCC)'s notice entitled "Expanding Flexible Use Of The 3.7 GHz to 4.2 GHz Band." IATA represents some 280 airlines in 120 countries, including the United States. Representing 83 percent of the world's air traffic, IATA's members include leading passenger and cargo airlines. IATA's mission is to represent, lead, and serve the airline industry. We help airlines to operate safely, securely, efficiently, and economically under clearly defined rules.

In assessing the implications of changes to the 3.7-4.2 GHz band, IATA strongly recommends that the FCC consider both in-band and adjacent band systems that directly support aviation safety. Any interference from new terrestrial systems within the 3.7-4.2 GHz band to aviation systems should be fully assessed, preferably in close coordination with the Federal Aviation Administration (FAA), to ensure the safety of the general public before any decision is made by the Commission.

The C-band satellite system operating in the 3.7-4.2 GHz band is being used for distribution of aviation data to remote areas and as redundant links to avoid single points of network failure. Networks using this capability include remote stations providing coverage for VHF Air Traffic Services networks and National Oceanic and Atmospheric Administration weather data used by aviation operators to make flight routing decisions.

The 4.2-4.4 GHz aeronautical radionavigation service (ARNS) allocation has been used globally by the airborne radio altimeter for more than 40 years to improve safety and avoid Controlled Flight Into Terrain accidents.[1] The altimeter's improvements to aviation safety worldwide have made it required onboard equipment on almost all medium to large scale

[1] *"The experience with GPWS and Controlled Flight Into Terrain, or CFIT, is more dramatic. Between 1946 and 1955, large passenger aircraft averaged 3.5 fatal CFIT accidents a year. Think of it: A fatal CFIT accident about every 15 weeks. Through the mid-70s we were still averaging two fatal passenger airline accidents per year due to CFIT. In contrast, no jet operator has suffered such an event in U.S. airspace since 1974."* Excerpt from speech by Nicholas A. Sabatini, FAA Associate Administrator for Aviation Safety (Dated May 12, 2006).

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commercial airframes as part of the Ground Proximity Warning System (GPWS) for operation during all phases of flight. All IATA member airlines have altimeters fitted on their transport aircraft fleets operating domestically and internationally.

The radio altimeter radar system sweeps or pulses through almost all of the 200 MHz ARNS allocation to achieve the necessary altitude resolution needed for precise navigation.[2] Preliminary studies submitted to the International Civil Aviation Organization, based on generic altimeter performance metrics, have shown potential interference from new adjacent terrestrial services in the 3.7-4.2 GHz band during low level operations such as landing and takeoff.[3] The radio altimeter is one of the main aircraft sensor systems used during all phases of flight including safety critical operations such as landing and take-off in low visibility weather. Any interference that compromises the radio altimeter receiver performance can immediately affect aircraft safety systems such as the autopilot function and the GPWS. Therefore, all interference to the radio altimeter, no matter how brief, should be considered a safety of flight issue.

Given the above, IATA requests that the FCC seriously consider any potential actions in the 3.7-4.2 GHz band that could affect aviation safety and urges continued protection of radio altimeter spectrum in the adjacent band. We also strongly recommend that the FAA be involved to fully assess any potential altimeter interference for both civilian and government aircraft.

Sincerely,

Douglas E. Lavin
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International Air Transport Association

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[2] *See* Comments of ASRI in the Matter of Spectrum Task Force Requests Information on Frequency Bands Identified By NTIA As Potential Broadband Spectrum, ET Docket No. 10-123 (Dated April 22, 2011).
[3] *See* ICAO studies to WG-Frequency: Preliminary Study into Radio Altimeter Adjacent Band Compatibility (Dated March 13, 2014).