



Radiocommunication Bureau (BR)

Administrative Circular
CACE/886

6 February 2019

To Administrations of Member States of the ITU, Radiocommunication Sector Members, ITU-R Associates participating in the work of the Radiocommunication Study Group 5 and ITU Academia

Subject: Radiocommunication Study Group 5 (Terrestrial services)
– **Approval of 1 new ITU-R Question**

By Administrative Circular CACE/878 of 28 November 2018, 1 draft new ITU-R Question was submitted for approval by correspondence in accordance with Resolution ITU-R 1-7 (§ A2.5.2.3).

The conditions governing this procedure were met on 28 January 2019.

The text of the approved Question is attached for your reference in the Annex to this letter and will be published by the ITU.

Mario Maniewicz
Director

Annex: 1

Distribution:

- Administrations of Member States of the ITU and Radiocommunication Sector Members participating in the work of Radiocommunication Study Group 5
- ITU-R Associates participating in the work of Radiocommunication Study Group 5
- ITU Academia
- Chairmen and Vice-Chairmen of Radiocommunication Study Groups
- Chairman and Vice-Chairmen of the Conference Preparatory Meeting
- Members of the Radio Regulations Board
- Secretary-General of the ITU, Director of the Telecommunication Standardization Bureau, Director of the Telecommunication Development Bureau

Annex

QUESTION ITU-R 260/5¹

Coexistence analysis between foreign object debris detection systems operating in the frequency range 92 to 100 GHz and earth exploration satellite service sensors in-band and in adjacent bands

(2019)

The ITU Radiocommunication Assembly,

considering

- a) that foreign object debris (FOD) can severely injure airport or airline personnel and damage equipment;
- b) that FOD can originate from personnel, airport infrastructure, the environment and the equipment operating on the airfield;
- c) that an airport study showed that in one year, over 60% of the FOD items were made of metal, followed by 18% of the items being made of rubber;
- d) that there is a need to detect FOD on airport surfaces to maintain safe airport operations;
- e) that advanced technologies such as millimetre-wave radars are now available for improved FOD detection, including capabilities for continuous detection on runways and other aircraft movement areas;
- f) that FOD radars must be able to detect an object whose size is as small as 3.1 cm high and 3.8 cm in diameter;
- g) that aviation authorities provide guidance and specifications for procuring airport FOD detection equipment;
- h) that sufficient contiguous bandwidth is available for radiolocation services in the frequency range 92-100 GHz;
- i) that the technical and operational characteristics of FOD detection system need to be documented,

recognizing

- a) that there is no regulatory priority between co-primary services without additional specific regulatory provisions contained in the RR;
- b) that, in frequency bands above 71 GHz, in order to accommodate the emerging requirements of active services, sharing with passive services should be studied in accordance with Resolution **731 (Rev.WRC-12)**;

¹ This Question should be brought to the attention of the International Civil Aviation Organization and the World Meteorological Organization.

c) that appropriate measure and sharing criteria between co-primary active services should be also studied in accordance with Resolution 732 (Rev.WRC-12);

d) that for sharing and compatibility scenarios the protection criteria for the EESS (passive) is contained in Recommendation ITU-R RS.2017 and the protection criteria for EESS (active) is contained in Recommendation ITU-R RS.1166;

e) that the unwanted emission levels for the fixed service to protect Earth exploration-satellite service (EESS) (passive) operating in the band 86-92 GHz are specified in accordance with Resolution 750 (Rev.WRC-15),

decides that the following Question should be studied

what technical conditions are necessary for FOD detection and EESS (active)/EESS (passive) systems to ensure their coexistence when using a common frequency band or adjacent frequency bands?

further decides

1 that the technical and operational characteristics for FOD detection systems should be included in an ITU-R Recommendation;

2 that the results of the studies should also be included in an ITU-R Report;

3 that the work should be completed by 2023.

Category: S2
