



Radiocommunication Bureau

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**Administrative Circular
CACE/484**

6 July 2009

**To Administrations of Member States of the ITU,
Radiocommunication Sector Members, ITU-R Associates
participating in the work of Radiocommunication Study Group 5
and the Special Committee on Regulatory/Procedural Matters**

Subject: Radiocommunication Study Group 5

- **Approval of 1 new ITU-R Question and 1 revised ITU-R Question**
- **Suppression of 1 ITU-R Question**

By Administrative Circular CAR/274 of 19 March 2009, 1 draft new ITU-R Question and 1 draft revised ITU-R Question were submitted for approval by correspondence in accordance with Resolution ITU-R 1-5 (§ 3.4). In addition, the Study Group proposed the suppression of 1 ITU-R Question.

The conditions governing these procedures were met on 19 June 2009.

The texts of the approved Questions are attached for your reference (Annexes 1 and 2) and will be published in Revision 3 to [Document 5/1](#) which contains the ITU-R Questions approved by the 2007 Radiocommunication Assembly and assigned to Radiocommunication Study Group 5. The suppressed ITU-R Question is indicated in Annex 3.

Valery Timofeev
Director, Radiocommunication Bureau

Annexes: 3

Distribution:

- Administrations of Member States and Radiocommunication Sector Members
- ITU-R Associates in the work of Radiocommunication Study Group 5
- Chairmen and Vice-Chairmen of Radiocommunication Study Groups and Special Committee on Regulatory/Procedural Matters
- 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

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Annex 1

QUESTION ITU-R 249/5

Technical characteristics and operational requirements of wireless avionics intra-communications (WAIC)

(2009)

The ITU Radiocommunication Assembly,

considering

- a) that as wireless technologies continue to evolve, the aviation industry anticipates increasing demands for both safety and non-safety short-range wireless applications to be installed onboard aircraft for intra-aircraft communication;
- b) that the use of wireless systems onboard aircraft creates unique opportunities for reducing weight and complexity in aircraft design providing more cost-effective flight operations, easing and reducing down time for installation and maintenance, and supporting more efficient aircraft system upgrades that maintain or improve the level of safety and enhance performance over the aircraft's useful lifetime;
- c) that because commercial aircraft cross national boundaries and are global by nature, use of the same types of wireless avionics intra-communications (WAIC) systems will encourage the benefits of the same standardization and economies of scale in manufacturing and supporting such systems;
- d) that WAIC systems are envisaged to be designed to enhance spectrum reuse and ensure protection of other services or systems;
- e) that WAIC systems are envisioned to be accommodated in existing allocations to mobile services, including the aeronautical mobile services,

noting

that the use of wireless systems onboard aircraft is expected to reduce aircraft weight and fuel consumption, thereby benefiting the environment,

decides that the following Questions should be studied

- 1** What types of existing wired systems are envisioned to be converted to WAIC systems?
- 2** What types of new applications could be implemented as WAIC systems?
- 3** Under which radiocommunication services could WAIC systems be operated?

4 What technical characteristics, operational and bandwidth requirements, protection criteria, and performance objectives should be associated with the WAIC systems that would be used for the applications identified in *decides 1* and *2*, taking into account *decides 3*?

5 What is a practical number of identified WAIC systems that could coexist in the same frequency band with minimum mutual and external interference?

6 What techniques can be used by the WAIC systems to ensure compatibility with other existing applications or radio services, taking into account *decides 2*?

7 What are the spectrum requirements for WAIC?

further decides

1 that the results of the above studies should be included in one or more Recommendation(s) and/or Report(s);

2 that the above studies should be completed by the year 2011;

3 that this Question should be brought to the attention of ICAO.

Category: S2

Annex 2

QUESTION ITU-R 215-3/5*

Frequency bands, technical characteristics, and operational requirements for fixed wireless access systems in the fixed and/or land mobile services**

(1997-2000-2007-2009)

The ITU Radiocommunication Assembly,

considering

- a) the potential of wireless access to enhance the availability of basic communication services in many countries, particularly developing countries;
- b) that there is a need for efficient use of the radio-frequency spectrum;
- c) that wireless access has potential for greater economic and socio-economic benefits than other access media to telecommunication networks (e.g., PSTN, ISDN);
- d) that wireless access technologies allow fast and economic deployment of telecommunication facilities;
- e) that enhanced competition in the provision of services is desirable;
- f) that fixed wireless access systems may be implemented in frequency bands used by both the fixed and mobile services;
- g) that a number of ITU-R Recommendations exist on various aspects of fixed wireless access, for example Recommendations ITU-R F.755, ITU-R F.757, ITU-R F.1399, ITU-R F.1400, ITU-R F.1401, ITU-R F.1499, ITU-R F.1402, ITU-R M.687, ITU-R M.819, ITU-R M.1033, ITU-R M.1073, and ITU-R M.1801 as well as a Handbook on Land Mobile (including Wireless Access);
- h) that different wireless access technologies are suitable for different environments;
- j) that the ongoing studies of IMT-2000 in the ITU have highlighted fixed wireless access as an important application;
- k) that the availability and possible adaptation of mobile technologies for fixed wireless access applications may be advantageous;
- l) that spectrum sharing between fixed and mobile wireless access applications may improve the spectrum utilization;

* Former Question ITU-R 215-2/8.

** Fixed wireless access is defined in Recommendation ITU-R F.1399.

- m) that there is a need to consider:
 - both fixed and mobile wireless access services in conjunction with each other; and
 - the cost-benefits of integration of both types of services;
- n) that different fixed wireless access environments may require different frequency bands;
- o) that broadband wireless access, including wireless access to asynchronous transfer mode (ATM) and Internet Protocol (IP) core networks is a category of fixed wireless access that is becoming important,

decides that the following Questions should be studied

- 1** What are the frequency bands suitable for fixed wireless access systems within the terrestrial fixed and/or mobile frequency allocations?
- 2** What are the frequency bands that might allow compatible operation between wireless access systems and systems of existing radio services within the terrestrial fixed and/or mobile frequency allocations?
- 3** What are the characteristics and operational requirements of fixed wireless access systems?
- 4** What are the overall RF and IF bandwidth requirements for fixed wireless access systems within the terrestrial fixed and/or mobile frequency allocations?
- 5** What are the spectrum sharing criteria for:
 - wireless access systems and systems supporting other radio services?
 - wireless access systems using different technologies?
- 6** What are the technologies suitable for wireless access?
- 7** What techniques need to be considered for fixed wireless access operation to enhance spectrum sharing?
- 8** What are the interface requirements between wireless access systems and the switched network (e.g., PSTN, ISDN)?
- 9** What additional vocabulary should be used with fixed wireless access systems?

further decides

- 1** that the results of the above studies should be included in one or more Recommendations, Reports or Handbooks;
- 2** that the above studies should be completed by 2010.

Category: S2

Annex 3

Suppressed ITU-R Question

Question ITU-R	Title
224-2/5	Adaptive antennas
