INTERNATIONAL TELECOMMUNICATION UNION

Radiocommunication Bureau
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Administrative Circular
CACE/316

31 May 2004

To Administrations of Member States of the ITU and Radiocommunication Sector Members participating in the work of the Radiocommunication Study Groups and the Special Committee on Regulatory/Procedural Matters

Subject: Approval of 2 new ITU-R Questions and 1 revised ITU-R Question and their assignment to Radiocommunication Study Group 8 and the suppression of 3 ITU-R Questions

With reference to Administrative Circular CAR/166 of 16 February 2004, I wish to inform you that 2 new ITU-R Questions and 1 revised ITU-R Question have been approved by correspondence in accordance with Resolution ITU-R 1-4 (§ 3.4) and therefore constitute official texts for study by the Radiocommunication Study Groups. The texts of these Questions are attached for your reference and are contained in Addendum 1 to Document 8/1 which contains the ITU-R Questions approved by the 2003 Radiocommunication Assembly and assigned to Radiocommunication Study Group 8.

In addition, the suppression of the 3 ITU-R Questions, listed in Annex 4, was approved.

Valery Timofeev
Director, Radiocommunication Bureau

Annexes: 4

Distribution:

- Administrations of Member States and Radiocommunication Sector Members
- ITU-R Associates in the work of Radiocommunication Study Group 8
- 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

ANNEX 1

QUESTION ITU-R 202-3/8*

Unwanted emissions of primary radar systems

(1993-1997-2001-2004)

The ITU Radiocommunication Assembly,

considering

a) that the radio spectrum available for use by the radiodetermination service is limited;

b) that the radionavigation service is a safety service as specified by No. 4.10 of the Radio Regulations (RR), and in addition that some other types of radar systems such as weather radars may perform safety-of-life functions;

c) that the necessary bandwidth of emissions from radar stations in the radiodetermination service is large in order to effectively perform their function;

d) that new emerging technology systems may use digital or other technologies that are more susceptible to interference from unwanted emissions from radar systems due to their high peak envelope power;

e) that Radiocommunication Study Group 8 has been studying the question of efficient use of the radio spectrum by radar systems including the study of inherent unwanted emission characteristics of various types of output devices;

f) that Radiocommunication Study Group 9 completed studies on the effects of unwanted emissions from radar systems on systems in the fixed service and developed Recommendations ITU-R F.1097 on "Interference mitigation options to enhance compatibility between radar systems and digital radio-relay systems" and ITU-R F.1190 on "Protection criteria for digital radio-relay systems to ensure compatibility with radar systems in the radiodetermination service";

g) that unwanted emissions from radar systems may in some cases cause unacceptable interference to systems in other radio services operating in the adjacent and harmonically related bands (see Appendix 3, § 11 of the RR);

h) that performance (bandwidth, coherency, etc.), expected lifetime, cost, weight, size and mechanical ruggedness are important factors that must be considered in the design-to-performance specifications of radiodetermination systems;

j) that Radiocommunication Study Group 1 has revised Recommendation ITU-R SM.329 which includes spurious emission limits for the radiodetermination service;

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* This Question should be brought to the attention of Radiocommunication Study Group 1, the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), the International Maritime Organization (IMO), the International Civil Aviation Organization (ICAO), the International Maritime Radio Committee (CIRM), and the World Meteorological Organization (WMO).

k) that Radiocommunication Study Group 1 has developed Recommendation ITU-R SM.1541 on out-of-band emission limits which includes amongst others out-of-band emission limits for the radiodetermination service outside their exclusive bands;

l) that WRC-2000 revised Appendix 3 Table of Maximum Permitted Spurious Emission Power Levels based on Recommendation ITU-R SM.329, and decided that radiodetermination service transmitters installed after 1 January 2003 and all transmitters after 1 January 2012 must comply with these power levels;

m) that Radiocommunication Study Group 8 has developed Recommendation ITU-R M.1177 on techniques for measurement of unwanted emissions of radar systems;

n) that Radiocommunication Study Group 8 has developed Recommendation ITU-R M.1314 on reduction of spurious emissions of radar systems operating in the 3 GHz and 5 GHz bands,

noting

that the out-of-band limits in bands allocated to the radiodetermination service on an exclusive basis are under the purview of Study Group 8,

decides that the following Question should be studied

1 What are the unwanted emission levels from existing and state-of-the-art radar systems taking into account:

a) type and size of the platform (e.g. fixed, mobile, shipborne, airborne, etc.);

b) available technologies; and

c) economic considerations?

2 What mitigation options, such as the choice of output device, could be taken into consideration in the design and implementation of radar systems to reduce radar unwanted emissions, and what are their associated impacts on operational performance (bandwidth, coherency, etc.) expected lifetime, relative cost, weight, size and mechanical ruggedness?

3 What unwanted emission levels can be achieved using these mitigation options, and what compatibility can then be achieved with other radio services?

further decides

1 that the results of the above studies should be included in (a) Recommendation(s);

2 that the above studies should be completed by 2007.

Category: S2

ANNEX 2

QUESTION ITU-R 235/8*

Protection criteria for aeronautical and maritime systems

(2004)

The ITU Radiocommunication Assembly,

considering

a) that the radio spectrum is a limited resource;

b) that with a continued increase in demand for spectrum there is a requirement to identify possible sharing opportunities and carry out the relevant sharing studies;

c) that in order to carry out sharing studies protection criteria for existing and future planned systems need to be known, but for a number of aeronautical and maritime systems there are no relevant Recommendations that give protection criteria;

d) that aeronautical and maritime systems often provide safety of life functions,

noting

that an absence of protection criteria may significantly delay sharing studies,

decides that the following Question should be studied

1 What are the technical and operational characteristics and the required protection criteria for those aeronautical mobile and radiodetermination systems for which no Recommendations have already been established?

2 What are the technical and operational characteristics and the required protection criteria for those maritime mobile and radiodetermination systems for which no Recommendations have already been established?

further decides

1 that the results of the above studies should be included in Recommendations and/or Reports;

2 that the above studies should be completed by 2007.

Category: S2

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* This Question should be brought to the attention of the International Civil Aviation Organization (ICAO), International Maritime Organization (IMO), and the International Electrotechnical Commission (IEC).

ANNEX 3

QUESTION ITU-R 236/8

Characteristics and operational requirements of radionavigation-satellite service (space-to-Earth, space-to-space, Earth-to-space) systems

(2004)

The ITU Radiocommunication Assembly,

considering

a) that radionavigation-satellite service (RNSS) systems provide worldwide precision, timing, positioning and navigation information for many applications, including critical and safety of life applications;

b) that there are various existing or planned RNSS systems;

c) that the bands 1 164-1 300 MHz, 1 559-1 610 MHz and 5 010-5 030 MHz are allocated worldwide on a primary basis to the RNSS (space-to-Earth, space-to-space);

d) that the bands 1 300-1 350 MHz, and 5 000-5 010 MHz are allocated worldwide on a primary basis to the RNSS (Earth-to-space);

e) that these frequency bands are also allocated on a primary basis to other services;

f) that characteristics and protection criteria for RNSS systems may differ between bands and user applications;

g) that WRC-2000 concluded that sharing of the 1 559-1 610 MHz RNSS band by any co-frequency communication service is not recommended;

h) that studies on the compatibility between RNSS and other services or systems are ongoing or planned;

j) that Recommendations ITU-R M.1477 and ITU-R M.1479 provide characteristics and descriptions of several types of receivers that are used with several RNSS systems;

k) that the design of RNSS systems referred to in *considering* f) has recently evolved, and that the corresponding relevant Recommendations consequently may require updating;

l) that there is an essential need to protect RNSS systems from the interference caused by other services and systems, to the extent provided by the Radio Regulations,

decides that the following Question should be studied

What are the technical and operational characteristics of RNSS systems to be used in sharing and compatibility studies with other services or systems?

further decides

1 that the results of the above studies should be included in one or more Recommendations and/or Reports;

2 that the above studies should be completed by 2005.

Category: S1

ANNEX 4

Suppressed Questions

Q. ITU-R 12-4/8	Radio-paging systems
Q. ITU-R 113/8	Technical and operational characteristics of land mobile systems using multi-channel access techniques without a central controller
Q. ITU-R 222/8	Essential technical requirements of mobile earth stations for global non-geostationary mobile-satellite service systems with primary allocations in bands below 1 GHz