



Radiocommunication Bureau

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**Administrative Circular
CACE/480**

15 June 2009

**To Administrations of Member States of the ITU, Radiocommunication Sector Members,
ITU-R Associates participating in the work of the Radiocommunication Study Group 4
and the Special Committee on Regulatory/Procedural Matters**

Subject: Meeting of Radiocommunication Study Group 4 (Satellite services),
Geneva, 21-22 September 2009

1 Introduction

By means of this Administrative Circular, we wish to announce that a meeting of ITU-R Study Group 4 will take place in Geneva from 21 to 22 September 2009, following the meetings of Working Parties 4A, 4B and 4C (see Circular letter [4/LCCE/99](#)).

The Study Group meeting will be held in the ITU Headquarters, Geneva. The opening session will take place at 09:30 hours.

2 Programme of the meeting

The draft agenda for the meeting of Study Group 4 is contained in Annex 1.

The Questions assigned to Study Group 4 may be found on:

<http://www.itu.int/ITU-R/go/que-rsg4/en>

2.1 Adoption of draft Recommendations at the Study Group meeting (§ 10.2.2 of Resolution ITU-R 1-5)

Draft new and revised Recommendations, prepared by Working Parties 4A, 4B and 4C at their meetings in April-May 2009, are proposed for adoption by the Study Group at its meeting in accordance with § 10.2.2 of Resolution ITU-R 1-5.

In conformity with §10.2.2.2 of Resolution ITU-R 1-5, the titles and summaries of the draft new and revised Recommendations are given in Annex 2.

2.2 Adoption of draft Recommendations by a Study Group by correspondence (§ 10.2.3 of Resolution ITU-R 1-5)

The procedure described in § 10.2.3 of Resolution ITU-R 1-5 concerns draft new or revised Recommendations which are not specifically included in the agenda of a Study Group meeting.

In accordance with this procedure, draft new and revised Recommendations prepared during the meetings of Working Parties 4A, 4B and 4C held prior to the Study Group meeting will be submitted to the Study Group. After due consideration, the Study Group may decide to seek adoption of these draft Recommendations by correspondence. In such cases, the Study Group may also decide to apply the procedure for simultaneous adoption and approval (PSAA) of a draft Recommendation as described in § 10.3 of Resolution ITU-R 1-5 (see also § 2.3 below).

In accordance with § 2.25 of Resolution ITU-R 1-5, Annex 3 to this Circular contains a list of topics to be addressed at the meetings of the Working Parties held prior to the Study Group meeting, and for which draft Recommendations may be developed.

2.3 Decision on approval procedure

At the meeting, the Study Group shall decide on the eventual procedure to be followed for seeking approval for each draft Recommendation in accordance with § 10.4.3 of Resolution ITU-R 1-5. Approval may be sought by submitting the draft Recommendation to the next Radiocommunication Assembly, or by consultation of the Member States; alternatively, the Study Group may decide to use the PSAA procedure described in § 10.3 of Resolution ITU-R 1-5.

3 Contributions

Contributions in response to the work of Study Group 4 are invited. These will be processed according to the provisions laid down in Resolution ITU-R 1-5 and posted on <http://www.itu.int/md/R07-SG04-C/en>. **The deadline for submission of contributions is Monday, 14 September at 16:00 hours UTC.** Submissions received later than this deadline cannot be accepted. Resolution ITU-R 1-5 provides that contributions which are not available to participants at the opening of the meeting shall not be considered.

Participants are requested to submit contributions by electronic mail to:

rsg4@itu.int

A copy should also be sent to the Chairman and Vice-Chairmen of Study Group 4. The pertinent addresses can be found on:

http://www.itu.int/cgi-bin/htsh/compass/cvc.param.sh?acvty_code=sg4

4 Participation/Visa requirements

Delegate/participant registration for the meeting will be carried out online via the ITU-R website. Each Member State/Sector Member/Associate was requested to designate a focal point to be responsible for the handling of all registration requests for his/her administration/organization. Individuals wishing to attend should contact the focal point designated for all Study Group activities for his/her entity directly. The list of designated focal points (DFPs) is available on the **ITU-R Member Information and Delegate Registration** webpage at:

<http://www.itu.int/ITU-R/go/delegate-reg-info/en>.

4.1 Visa requirements

We would like to remind delegates and participants that citizens of some countries are required to obtain a visa in order to enter and spend time in Switzerland. **The visa must be requested at least three (3) weeks prior to the opening of the meeting** and obtained from the office (embassy or consulate) representing Switzerland in the respective country of origin. In cases where there is no such office in the country, the visa should be obtained from the office that is closest to the country of departure. If problems are encountered, the Union can, at the official request of the administration or entity being represented, approach the competent Swiss authorities in order to facilitate the delivery of the visa, however, this procedure will require three weeks as mentioned above. Any such request must be accompanied by the approved registration form related to the ITU conference or meeting in question.

For further information see <http://www.itu.int/ITU-R/go/delegate-reg-info/en>.

4.2 Visa requests

For Delegates/Participants who have made their registration request on-line via their respective Member State/Sector Member/Associate DFP, the process for requesting visa support has been simplified. *If ITU Headquarters assistance is required*, the request for support in obtaining a visa may be made by the DFP at the time of completion of the registration request for the individual concerned. On the bottom of the registration form, the DFP will find several questions which must be completed fully and accurately. The required information is as follows:

- Date of birth
- Passport number
- Passport issuance and expiry dates

The visa support procedure will subsequently follow automatically. The Delegate/Participant will be notified via the Confirmation of Registration form sent to his/her e-mail address that the visa support request has been received and is being processed.

The Delegate Registration desk will open at 08:30 hours on the first day of the meeting at the entrance of the Montbrillant building. Please note that the confirmation of registration sent to each delegate/participant by e-mail must be presented, together with photo identification, in order to receive a badge.

Information regarding hotel accommodation for meetings held in Geneva is available at <http://www.itu.int/travel/index.html>.

Valery Timofeev
Director, Radiocommunication Bureau

Annexes: 3

Distribution:

- Administrations of Member States and Radiocommunication Sector Members
- ITU-R Associates participating in the work of Radiocommunication Study Group 4
- 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

Draft agenda for the meeting of Radiocommunication Study Group 4

(Geneva, 21-22 September 2009, at 9:30 hours)

(Room C)

- 1** Opening remarks
- 1.1** Director BR
- 1.2** Chairman
- 2** Approval of the agenda
- 3** Appointment of the Rapporteur
- 4** Summary record ([Document 4/68+Add. 1, 2,3](#))
- 5** Executive Reports from Working Party Chairmen
- 5.1** Working Party 4A
- 5.2** Working Party 4B
- 5.3** Working Party 4C
- 6** Consideration of new and revised Recommendations
- 6.1** Recommendations where notice of intention to seek adoption was given
(see Resolution ITU-R 1-5, § 10.2.2 and § 10.4)
 - Decision to adopt the text by the Study Group
 - Decision on the approval procedure to be followed
- 6.1.1** Working Party 4A
- 6.1.2** Working Party 4B
- 6.1.3** Working Party 4C
- 6.2** Recommendations where notice of intention to seek adoption was not given
(see Resolution ITU-R 1-5, § 10.2.3, § 10.3 and § 10.4)
 - Decision to seek adoption
 - Decision on eventual approval procedure to be followed
- 6.2.1** Working Party 4A
- 6.2.2** Working Party 4B
- 6.2.3** Working Party 4C
- 7** Consideration of Questions
- 8** Consideration of Reports
- 9** Liaison with other Study Groups and international organizations
- 10** Consideration of future work programme and schedule of meetings
- 11** Any other business

V. RAWAT
Chairman, Radiocommunication
Study Group 4

Annex 2

Titles and summaries of the draft new and revised Recommendations proposed for adoption at the Study Group 4 meeting

Working Party 4A

Draft revision of Recommendation ITU-R S.1673

[Doc. 4/83](#)

Methodologies for the calculation of the worst-case interference levels from a non-geostationary HEO-type fixed-satellite service system into geostationary fixed-satellite service satellite networks operating in the 10 to 30 GHz frequency bands

Summary

This revision of Recommendation ITU-R S.1673 modifies the radiation pattern used in the calculation of worst-case interference levels from a non-geostationary HEO-type fixed-satellite service system into geostationary fixed-satellite service satellite networks.

Although the satellites in high Earth orbits move with time, the worst-case interference should be computed at the moment when the satellites in high Earth orbits are in the worst-case geometry and assuming that the satellites in high Earth orbits come to the direction of the side-lobe peak of the receiving earth station, so that the side-lobe peak envelope should be used in the calculation. Therefore, the reference radiation pattern contained in Recommendation ITU-R S.465 should be used rather than the one contained in Recommendation ITU-R S.1428.

Consequential to this change, it was agreed to delete a reference to Recommendation ITU-R S.1428 in section 2 of Annexes 1 and 2 and to change the reference antenna radiation pattern (from Recommendation ITU-R S.1428 to Recommendation ITU-R S.465) in Annexes 3 and 4.

Working Party 4B

Draft revision of Recommendation ITU-R S.1711

[Doc. 4/84](#)

Performance enhancements of transmission control protocol over satellite networks

Summary

Recommendation ITU-R S.1711 presents transmission control protocol (TCP) enhancements applied to satellite communication links. Various techniques, collectively referred to as “TCP performance enhancements” were developed to overcome satellite link limitations due to propagation delay and link errors. This Recommendation includes test results and measurements of these TCP enhancements. Background material on TCP performance over satellite links and comparison between various enhancements were also included in this Recommendation. This draft revision aims at focusing the Recommendation on the specification of TCP enhancements for satellite links, while the background material on TCP is transferred to a separate technical Report.

Working Party 4C

Draft new Recommendation ITU-R M.[1457-SAT]

[Doc. 4/85](#)

Detailed specifications of the radio interfaces for the satellite component of International Mobile Telecommunications-2000 (IMT-2000)

Summary

At its April 2008 meeting, Study Group 4 decided that the entire section of Recommendation ITU-R M.1457 that specified mobile-satellite service air interfaces for IMT-2000 should be converted as soon as possible to a stand-alone Recommendation within Study Group 4.

On the basis of this decision, Working Party 4C developed a Recommendation which converts Section 6 of Recommendation ITU-R M.1457 into a new, stand-alone Recommendation. This draft new Recommendation also contains the addition of the new GMR satellite radio interface (“SRI-H”) that was introduced in March 2008 and which has completed the evaluation process in accordance with Resolution ITU-R 47-1 and Recommendation ITU-R M.1225.

The basis of a methodology to assess the impact of interference from a time division multiple access/frequency division multiple access (TDMA/FDMA) mobile-satellite service (MSS) space-to-Earth transmissions on the performance of line-of-sight fixed service receivers in the frequency range 1-3 GHz

Summary

The revision to this Recommendation expand the scope of this Recommendation to include bands around 1.5 GHz allocated to both the MSS and FS on a co-primary basis. There are also updates to references to certain other ITU-R Recommendations and minor editorial improvements.

This revision process has been undertaken jointly with Working Party 5C through the exchange of liaison statements.

Methodology for evaluating potential for interference from time division multiple access/frequency division multiple access (TDMA/FDMA) mobile-satellite service (MSS) Earth-to-space transmissions into line-of-sight fixed service receivers in the frequency range 1-3 GHz

Summary

The revision to this Recommendation expand the scope of this Recommendation to include bands around 1.6 GHz allocated to both the MSS and FS on a co-primary basis. There are also updates to references to certain other ITU-R Recommendations and minor editorial improvements.

This revision process has been undertaken jointly with Working Party 5C through the exchange of liaison statements.

Draft revision of Recommendation ITU-R M.1471

[Doc. 4/78](#)

**Guidance to facilitate coordination and use of frequency bands shared
between the mobile-satellite service and the fixed service
in the frequency range 1-3 GHz**

Summary

The revision to this Recommendation supplement and update the references to certain ITU-R Recommendations to be used for guidance to facilitate coordination and use of frequency bands shared between the mobile-satellite service and the fixed service in the frequency range 1-3 GHz.

Draft revision of Recommendation ITU-R M.1472

[Doc. 4/77](#)

**Methodology to evaluate the impact of interference from time division multiple
access/frequency division multiple access (TDMA/FDMA) mobile-satellite
service (MSS) space-to-Earth transmissions on baseband performance in
frequency division multiplexing-frequency modulation (FDM-FM)
analogue line-of-sight (LoS) fixed service receivers
in the frequency range 1-3 GHz**

Summary

The revision to this Recommendation expand the scope of this Recommendation to include bands around 1.5 GHz allocated to both the MSS and FS on a co-primary basis. There are also updates to references to certain other ITU-R Recommendations and minor editorial improvements.

This revision process has been undertaken jointly with Working Party 5C through the exchange of liaison statements.

Draft revision of Recommendation ITU-R M.1473

[Doc. 4/76](#)

Methodology to evaluate the impact of interference from time division multiple access/frequency division multiple access (TDMA/FDMA) mobile-satellite service (MSS) space-to-Earth transmissions on video baseband performance in TV-FM analogue line-of-sight fixed service receivers in the frequency range 1-3 GHz

Summary

The revision to this Recommendation expand the scope of this Recommendation to include bands around 1.5 GHz allocated to both the MSS and FS on a co-primary basis. There are also updates to references to certain other ITU-R Recommendations and minor editorial improvements.

This revision process has been undertaken jointly with Working Party 5C through the exchange of liaison statements.

Draft revision of Recommendation ITU-R M.1474

[Doc. 4/75](#)

Methodology to evaluate the impact of interference from time division multiple access/frequency division multiple access (TDMA/FDMA) mobile-satellite service (MSS) systems on baseband performance in digital line-of-sight fixed service receivers based on statistics of radio-frequency interference in the frequency range 1-3 GHz

Summary

The revision to this Recommendation expand the scope of this Recommendation to include bands around 1.5/1.6 GHz allocated to both the MSS and FS on a co-primary basis. There are also updates to references to certain other ITU-R Recommendations and minor editorial improvements.

This revision process has been undertaken jointly with Working Party 5C through the exchange of liaison statements.

Annex 3

Topics to be addressed at meetings of Working Parties 4A, 4B and 4C held prior to the meeting of Study Group 4 and for which draft Recommendations may be developed

Working Party 4A

- Methodologies to estimate the off-axis e.i.r.p. levels and to assess the interference towards adjacent satellites resulting from pointing errors of vehicle-mounted earth stations in the 14 GHz frequency band (PDNR ITU-R S.[VEHICLE_E/S] in [Annex 1 to Document 4A/197](#)).
- Methodologies for determining whether an IMT station at a given location operating in the band 3 400-3 600 MHz would transmit without exceeding the power flux-density limits in Nos. 5.430A, 5.432A, 5.432B and 5.433A of the Radio Regulations (PDNR ITU-R S.[IMT-PFD] in [Annex 2 to Document 4A/197](#)).
- Use of systems in the fixed-satellite service in the event of natural disasters and similar emergencies for warning and relief operations (PDRR ITU-R S.1001-1 in [Annex 3 to Document 4A/197](#)).

Working Party 4B

- Quality of service (QoS) architectures, mechanisms and their provisioning in IP-based satellite networks (PDNR ITU-R S.[IPQoS] in [Annex 3 to Document 4B/85](#)).
- Allowable error performance for a hypothetical reference digital path based on synchronous digital hierarchy (PDRR ITU-R S.1521 in [Annex 17 to Document 4B/85](#)).

Working Party 4C

- Characteristics and protection criteria for receiving earth stations in the radionavigation-satellite service (space-to-Earth) operating in the band 1 164-1 215 MHz (DNR ITU-R M.[CHAR-RX3] in [Annex 1 to Document 4C/245](#)).
- Characteristics and protection criteria for receiving earth stations in the radionavigation-satellite service (space-to-Earth) operating in the band 1 215-1 300 MHz (DNR ITU-R M.[1088_NEW] in [Annex 2 to Document 4C/245](#)).

- Characteristics and protection criteria for receiving earth stations in the radionavigation-satellite service (space-to-Earth) and receivers in the aeronautical radionavigation service operating in the band 1 559-1 610 MHz (DNR ITU-R M.[1477_NEW] in [Annex 3 to Document 4C/245](#)).
 - Characteristics, performance requirements and protection criteria for receiving stations of the radionavigation-satellite service (space-to-space) operating in the frequency bands 1 164-1 215 MHz, 1 215-1 300 MHz and 1 559-1 610 MHz (DNR ITU-R M.[1479_NEW] in [Annex 4 to Document 4C/245](#)).
 - Guidance on ITU-R Recommendations related to systems and networks in the radionavigation-satellite service operating in the frequency bands 1 164-1 215 MHz, 1 215-1 300 MHz, 1 559-1 610 MHz, 5 000-5 010 MHz (DNR ITU-R M.[RNSS_GUIDE] in [Annex 5 to Document 4C/245](#)).
 - Use of mobile-satellite service (MSS) in disaster response and relief (PDNR ITU-R M.[MOBDIS] in [Annex 6 to Document 4C/245](#)).
 - Characteristics and protection criteria of receiving space stations and characteristics of transmitting earth stations in the radionavigation-satellite service (Earth-to-space) operating in the band 5 000-5 010 MHz (PDNR ITU-R M.[E-S TX+Rx] in [Annex 7 to Document 4C/245](#)).
 - Characteristics and protection criteria of receiving earth stations and characteristics of transmitting space stations of the radionavigation-satellite service (space-to-Earth) operating in the band 5 010-5 030 MHz (PDNR ITU-R M.[S-E RX+TX] in [Annex 8 to Document 4C/245](#)).
 - Evaluation model for pulsed interference from relevant radio sources other than in the radionavigation-satellite service to the radionavigation-satellite service systems and networks operating in the 1 164-1 215 MHz, 1 215-1 300 MHz, 1 559-1 610 MHz and 5 010-5 030 MHz bands (PDNR ITU-R M.[PULSE_EVAL] in [Annex 9 to Document 4C/245](#)).
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