



## Radiocommunication Bureau (BR)

Administrative Circular  
**CACE/890**

11 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 3  
and ITU Academia**

Subject: **Meeting of Radiocommunication Study Group 3 (Radiowave propagation),  
Geneva, 24 May 2019**

### 1 Introduction

By means of this Administrative Circular, I wish to announce that a meeting of ITU-R Study Group 3 will take place in Geneva on 24 May 2019, following the meetings of Working Parties 3J, 3K, 3L and 3M (see Circular Letter [3/LCCE/41](#)).

The Study Group meeting will be held in the ITU Headquarters, Geneva. The opening session will take place at 0930 hours.

Group	Meeting date	Deadline for contributions	Opening session
Study Group 3	24 May 2019	Friday, 17 May 2019 at 1600 hours UTC	Friday, 24 May 2019 at 0930 hours (local time)

### 2 Programme of meeting

The draft agenda for the meeting of Study Group 3 is contained in Annex 1. The status of texts assigned to Study Group 3 can be found on:

<http://www.itu.int/md/R15-SG03-C-0001/en>

#### 2.1 Adoption of draft Recommendations and Questions at the Study Group meeting (§ A2.6.2.2.2 and § A2.5.2.2.2 of Resolution ITU-R 1-7)

Six Recommendations are proposed for adoption by the Study Group in accordance with § A2.6.2.2.2 of Resolution ITU-R 1-7.

In accordance with § A2.6.2.2.1 of Resolution ITU-R 1-7, the titles and summaries of the draft revisions of Recommendations are given in Annex 2.

## **2.2 Adoption of draft Recommendations by a Study Group by correspondence (§ A2.6.2.2.3 of Resolution ITU-R 1-7)**

The procedure described in § A2.6.2.2.3 of Resolution ITU-R 1-7 concerns draft new or revised Recommendations that 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 3J, 3K, 3L and 3M 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 shall use the procedure for simultaneous adoption and approval (PSAA) by correspondence of the draft Recommendations as described in § A2.6.2.4 of Resolution ITU-R 1-7 (see also § 2.3 below), if there is no objection to this approach by any Member State attending the meeting and if the Recommendation is not incorporated by reference in the Radio Regulations.

In accordance with § A1.3.1.13 of Resolution ITU-R 1-7, Annex 3 to this Circular contains a list of topics to be addressed at the meetings of the Working Parties held just 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 § A2.6.2.3 of Resolution ITU-R 1-7, unless the Study Group has decided to use the PSAA as described in § A2.6.2.4 of Resolution ITU-R 1-7 (see § 2.2 above).

## **2.4 Editorial amendments to Recommendations (§ A2.6.2.5 of Resolution ITU-R 1-7)**

Editorial amendments to two Recommendations are proposed in accordance with § A2.6.2.5 of Resolution ITU-R 1-7. Annex 4 lists the titles and summaries of the Recommendations to which these editorial amendments are proposed.

## **3 Contributions**

Contributions in response to the work of Study Group 3 are processed according to the provisions laid down in Resolution ITU-R 1-7.

The deadline for reception of contributions not requiring translation\* (including Revisions, Addenda and Corrigenda to contributions) is 7 calendar days (1600 hours UTC) prior to the start of the meeting. **The deadline for reception of contributions for this meeting is specified in the table above.** Contributions received later than this deadline cannot be accepted. Resolution ITU-R 1-7 provides that contributions which are not available to participants at the opening of the meeting cannot be considered.

Participants are requested to submit contributions by electronic mail to:

[rsg3@itu.int](mailto:rsg3@itu.int)

A copy should also be sent to the Chairman and Vice-Chairmen of Study Group 3. The pertinent addresses can be found on:

<http://www.itu.int/go/rsg3/ch>

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\* Where translation is required, contributions should be received at least three months prior to the meeting.

#### 4 Documents

Contributions will be posted “as received” within one working day on the webpage established for this purpose:

<http://www.itu.int/md/R15-SG03.AR-C/en>

The official versions will be posted on <http://www.itu.int/md/R15-SG03-C/en> within 3 working days.

In accordance with Resolution 167 (Rev.Dubai, 2018) **the Study Group meeting will be completely paperless**. Wireless LAN facilities will be available for use by delegates in the meeting rooms. Printers are available in the cyber café of the 2<sup>nd</sup> basement of the Tower building and on the ground floor and first floor of the Montbrillant building for delegates who wish to print documents. In addition, the Service Desk ([servicedesk@itu.int](mailto:servicedesk@itu.int)) has prepared a limited number of laptops for those who do not have one.

#### 5 Remote participation

In order to follow the proceedings of ITU-R meetings remotely an audio webcast of the Study Group Plenary meetings in all languages will be provided through the ITU Internet Broadcasting Service (IBS). Participants do not need to register for the meeting to use the webcast facility, however, an ITU [TIES account](#) is required to access the webcast.

#### 6 Participation/Visa requirements/Accommodation

Advance registration for ITU-R events is mandatory and carried out exclusively online through Designated Focal Points (DFPs). Each ITU-R Member has been requested to provide a DFP responsible for the handling of all registration formalities, including visa support requests that should also be submitted by the DFP during the on-line registration process. Individuals wishing to be registered for an ITU-R event should directly contact the DFP for their entity. The list of ITU-R DFPs (TIES protected) as well as detailed information on event registration, visa support requirements, hotel accommodation, etc. can be found at:

[www.itu.int/en/ITU-R/information/events](http://www.itu.int/en/ITU-R/information/events)



Mario Maniewicz  
Director

**Annexes:** 4

**Distribution:**

- Administrations of Member States of the ITU and Radiocommunication Sector Members participating in the work of Radiocommunication Study Group 3
- ITU-R Associates participating in the work of Radiocommunication Study Group 3
- 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 1**

### **Draft agenda for the meeting of Radiocommunication Study Group 3**

(Geneva, 24 May 2019, at 0930 hours)

- 1** Opening remarks
  - 1.1** Director BR
  - 1.2** Chairman
- 2** Approval of the agenda
- 3** Consideration of the outputs of the Working Parties
  - 3.1** Working Party 3J
  - 3.2** Working Party 3K
  - 3.3** Working Party 3L
  - 3.4** Working Party 3M
- 4** Consideration of other inputs (if any)
- 5** Consideration of new and revised Recommendations
  - 5.1** Recommendations where notice of intention to seek adoption was given  
(see Resolution ITU-R 1-7, §§ A2.6.2.2.2, A2.6.2.3)
  - 5.2** Recommendations where notice of intention to seek adoption was not given  
(see Resolution ITU-R 1-7, §§ A2.6.2.2.2, A2.6.2.2.3 and A2.6.2.4)
    - Decision on eventual approval procedure to be followed
- 6** Consideration of editorial amendments to Recommendations  
(see Resolution ITU-R 1-7, § A2.6.2.5)
- 7** Consideration of new and revised Reports
- 8** Consideration of new and revised Questions
- 9** Suppression of Recommendations, Reports and Questions
- 10** Consideration of other contributions
- 11** Status of Handbooks, Questions, Recommendations, Reports, Opinions, Resolutions and Decisions
- 12** Liaison with other Study Groups and international organizations
- 13** Schedule of meetings
- 14** Any other business

C. WILSON  
Chairman, Radiocommunication Study Group 3

## **Annex 2**

### **Titles and summaries of the draft revisions of Recommendations proposed for adoption at the Study Group 3 meeting**

#### **Working Party 3J**

Draft revision of Recommendation ITU-R P.840-7

Doc. 3/98

#### **Attenuation due to clouds and fog**

A revised interpolation method for Section 4 has been proposed and analysed.

It presents some difference with respect to the interpolation method of Section 3, but these differences have been found acceptable for the purpose of the application to Recommendation ITU-R P.1853-1.

Draft revision of Recommendation ITU-R P.525-3

Doc. 3/97

#### **Calculation of free-space attenuation**

This revision provides a definition of the terms “free-space” and “free-space propagation”. It also aligns the symbols used within the Recommendation with those defined in the preliminary draft revision of Recommendation ITU-R P.341-6 (Document 3/95). In Section 4 the received power definition has been revised to apply to a conjugately matched antenna rather than an isotropic antenna.

Draft revision of Recommendation ITU-R P.1057-5

Doc. 3/96

#### **Probability distributions relevant to radiowave propagation modelling**

The purpose of this draft revision is to revise Section 3 of Recommendation ITU-R P.1057-5 to clarify the difference between:

- a) a normal probability distribution with arbitrary mean and standard deviation, and
- b) a standard normal probability distribution with mean = 0 and standard deviation = 1.

Draft revision of Recommendation ITU-R P.341-6

Doc. 3/95

#### **The concept of transmission loss for radio links**

In summary, the proposed revisions to this recommendation are:

- to re-arrange the order in which the terms and definitions are given. There is no intention to make substantive changes in this re-ordering;
- to bring the symbols associated with the terms into conformity;
- to redefine the term “total loss” and “basic transmission loss”;

- to add a new annex to the Recommendation to provide a way of determining power flux density and field strength;
- to re-number the annexes and equations as necessary

### **Working Party 3L**

Draft revision of Recommendation ITU-R P.372-13

Doc. 3/94

#### **Radio noise**

This revision to the recommendation proposes that two categories for man-made noise should be introduced: outdoor (where the existing Recommendation may be adequate until more new data become available); and indoor (where the surrounding environment (in city or rural areas, etc.)) may not be important but where a typical range of expected noise powers may be given for representative local environments (domestic, small office, large office, etc.). So far there are very few data for the second category.

Draft revision of Recommendation ITU-R P.533-13

Doc. 3/93

#### **Method for the prediction of the performance of HF circuits**

Minor revisions are proposed to improve the modelling of above the MUF loss and to correct the equations for within the month probability.

## Annex 3

### Topics to be addressed at meetings of Working Parties 3J, 3K, 3L and 3M held immediately prior to the meeting of Study Group 3 and for which draft Recommendations may be developed

#### Working Party 3J

- Preliminary draft revision of Recommendation ITU-R P.453-13 Section 3.2 – The radio refractive index: its formula and refractivity data (Annex 1 to Document [3J/209](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.835-6 – Reference Standard Atmospheres (Annex 2 to Document [3J/209](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.676-11 – Attenuation by atmospheric gases (Annex 3 to Document [3J/209](#)).
- Information and Working Documents towards a preliminary draft revision of Recommendation ITU-R P.1511-1 – Topography for Earth-to-space propagation modelling (Annex 6 to Document [3J/209](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.1853-1 – Tropospheric attenuation time series synthesis (Annex 7 to Document [3J/209](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.527-4 – Electrical characteristics of the surface of the Earth (Annex 9 to Document [3J/209](#)).
- Working document towards a preliminary draft revision to Recommendation ITU-R P.1407-6 – Multipath propagation and parameterization of its characteristics (Annex 10 to Document [3J/209](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.526-14 – Propagation by diffraction (Annex 11 to Document [3J/209](#)).

#### Working Party 3K

- Preliminary draft revision of Recommendation ITU-R P.1812-4 – A path specific propagation prediction method for point-to-area terrestrial services in the VHF and UHF bands (Annex 1 to Document [3K/256](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.528-3 – Propagation curves for aeronautical mobile and radionavigation services using the VHF, UHF and SHF bands (Annex 3 to Document [3K/256](#)).
- Preliminary draft revision of Recommendation ITU-R P.1546-5 – Method for point-to-area predictions for terrestrial services in the frequency range 30 MHz to 3 000 MHz (Annex 4 to Document [3K/256](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.1238-9 – Propagation data and prediction methods for the planning of indoor radiocommunication systems and radio local area networks in the frequency range 300 MHz to 100 GHz (Annex 6 to Document [3K/256](#)).

- Working document towards a future preliminary draft revision of Recommendation ITU-R P.1411-9 – Propagation data and prediction methods for the planning of short-range outdoor radiocommunication systems and radio local area networks in the frequency range 300 MHz to 100 GHz (Annex 7 to Document [3K/256](#)).
- Working document towards a future preliminary draft revision of Recommendation ITU-R P.1816-3 – The prediction of the time and the spatial profile for broadband land mobile services using UHF and SHF bands (Annex 8 to Document [3K/256](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.2109-0 – Prediction of Building Entry Loss (Annex 14 to Document [3K/256](#)).

### **Working Party 3L**

- Preliminary draft revision of Recommendation ITU-R P.684-7 – Prediction of field strength at frequencies below about 150 kHz (Annex 2 to Document [3L/80](#)).
- Supplement for Recommendation ITU-R P.531-13 – A revision of the weighting function for seasonal-longitudinal dependence of section 4.5.2 (Annex 3 to Document [3L/80](#)).
- Information document for a possible revision of the scintillation prediction model in Recommendation ITU-R P.531-13 – Ionospheric propagation data and prediction methods required for the design of satellite services and systems (Annex 4 to Document [3L/80](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.531-13 – Ionospheric propagation data and prediction methods required for the design of satellite services and systems (Annex 5 to Document [3L/80](#)).

### **Working Party 3M**

- Discussion on rain model in Recommendation ITU-R P.530-17 – Propagation data and prediction methods required for the design of terrestrial line-of-sight systems (Annex 1 to Document [3M/343](#)).
- Discussion document towards a preliminary draft revision of Recommendation ITU-R P.618-13 – Modifying the upper probability limit of the rain attenuation prediction method (Annex 3 to Document [3M/343](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.618-12 – Proposed revisions and future work (Annex 4 to Document [3M/343](#)).
- Working document towards future revisions of Recommendation ITU-R P.681-10: A new Doppler model for the LMS channel model in section 6 – Propagation data required for the design of Earth-space land mobile telecommunication systems (Annex 5 to Document [3M/343](#)).
- Working document towards future revisions of Recommendation ITU-R P.681-10 – Propagation data required for the design of Earth-space land mobile telecommunication systems (Annex 7 to Document [3M/343](#)).
- Proposed revisions to Recommendations ITU-R P.452-15 – Prediction procedure for the evaluation of interference between stations on the surface of the Earth at frequencies above about 0.1 GHz and ITU-R P.2001-1 – A general purpose wide-range terrestrial propagation model in the frequency range 30 MHz to 50 GHz (Annex 8 to Document [3M/343](#)).



- Preliminary draft revision to Recommendation ITU-R P.452-16 – Prediction procedure for the evaluation of interference between stations on the surface of the Earth at frequencies above about 0.1 GHz (Annex 9 to Document [3M/343](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.452-16 – Prediction procedure for the evaluation of interference between stations on the surface of the Earth at frequencies above about 0.1 GHz, Section 5 (Annex 10 to Document [3M/343](#)).
- Working document towards a preliminary draft revision of Recommendation ITU-R P.619-3 – Propagation data required for the evaluation of interference between stations in space and those on the surface of the Earth (Annex 12 to Document [3M/343](#)).

## **Annex 4**

### **Titles and summaries of editorial amendments of Recommendations proposed for adoption at the Study Group 3 meeting**

#### **Working Party 3M**

Draft editorial revision to Recommendation ITU-R P.617-4

Doc. 3/101

#### **Propagation prediction technique and data required for the design of trans-horizon radio-relay systems**

An editorial error was confirmed in equation 6 of Recommendation ITU-R P.617-4.

Draft editorial revision to Recommendation ITU-R P.618-13

Doc. 3/100

#### **Probability of rain attenuation on a slant path**

The editorial revision proposes to harmonize the notation in Section 2.2.1.2 of Recommendation ITU-R P.618-13 with Recommendation ITU-R P.837-7.

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