



**ITUWRC**

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## Radiocommunication Bureau (BR)

Administrative Circular  
**CACE/1087**

31 October 2023

**To Administrations of Member States of the ITU, Radiocommunication Sector Members,  
ITU-R Associates participating in the work of Radiocommunication Study Group 7  
and ITU Academia**

Subject: **Radiocommunication Study Group 7 (Science Services)**

– **Proposed approval of 1 draft new and 4 draft revised ITU-R Recommendations**

At the meeting of Radiocommunication Study Group 7 held on 12 October 2023, the Study Group adopted the texts of 1 draft new and 4 draft revised ITU-R Recommendations and agreed to apply the procedure of Resolution ITU-R 1-8 (see § A2.6.2.3) for approval of Recommendations by consultation. The titles and summaries of the draft Recommendations are given in the Annex to this letter. Any Member State raising an objection to the approval of a draft Recommendation is requested to inform the Director and the Chairman of the Study Group of the reasons for the objection.

Having regard to the provisions of § A2.6.2.3 of Resolution ITU-R 1-8, Member States are requested to inform the Secretariat ([brsgd@itu.int](mailto:brsgd@itu.int)) by 31 December 2023, whether they approve or do not approve the proposals above.

After the above-mentioned deadline, the results of this consultation will be announced in an Administrative Circular and the approved Recommendations will be published as soon as practicable (see <http://www.itu.int/pub/R-REC>).

Any ITU member organization aware of a patent held by itself or others which may fully or partly cover elements of the draft Recommendations mentioned in this letter is requested to disclose such information to the Secretariat as soon as possible. The Common Patent Policy for ITU-T/ITU-R/ISO/IEC is available at <http://www.itu.int/en/ITU-T/ipr/Pages/policy.aspx>.

Mario Maniewicz  
Director

**Annex:** Titles and summaries of the draft Recommendations

**Documents:** Documents [7/83\(Rev.1\)](#), [7/85](#), [7/87\(Rev.1\)](#), [7/97](#) and [7/99\(Rev.1\)](#)

These documents are available in electronic format at: <https://www.itu.int/md/R19-SG07-C/en>

## **Annex**

### **Titles and summaries of the draft Recommendations adopted by Radiocommunication Study Group 7**

Draft new Recommendation ITU-R RS.[EESS SAR-RNSS]

Doc. 7/83(Rev.1)

#### **Evaluation of the potential for pulsed interference from planned and future spaceborne synthetic aperture radar sensors in the earth exploration-satellite (active) service to radionavigation-satellite service receivers in the 1 215-1 300 MHz band**

This Recommendation recommends the methodology to be used for performing a preliminary evaluation of the potential for pulsed interference from planned and future Earth exploration-satellite service (active) (EESS (active)) spaceborne synthetic aperture radars (SARs) to receiving earth stations in the radionavigation-satellite service (RNSS) (space-to-Earth) operating in the 1 215-1 300 MHz frequency band. This Recommendation has not been evaluated for application to RNSS (space-to-space) receivers on board spacecraft. As soon as the studies of EESS (active) scatterometers operating the frequency band 1 215-1 300 MHz are completed, the relevant information can be included in a future ITU-R recommendation or report, as appropriate.

The evaluation of the pulsed interference caused by SARs in the EESS (active) to RNSS receivers (space-to-Earth) should also consider the cumulative impact of multiple spaceborne active sensors that may simultaneously illuminate the RNSS receivers, wherever relevant.

Draft revision of Recommendation ITU-R SA.1014-3

Doc. 7/85

#### **Radiocommunication requirements for manned and unmanned deep space research**

The proposed revisions include the additional earth stations used by some administrations for deep space research, increased transmit power levels of these stations, and the review of other system characteristics of space research service. In addition, the antenna diameter used in the example link table has been updated.

## **Frequency sharing between SRS and FSS (space-to-Earth) systems in the 37.5-38 GHz band**

The currently in forced version of this recommendation includes e.i.r.p. and pfd limits for the space-VLBI (SVLBI) and lunar systems of SRS, and systems of FSS GSO and HEO constellation. This revision adds mitigation techniques low Earth orbit (LEO) and medium Earth orbit (MEO) constellations. Distances obtained for non-GSO FSS feeder links are also corrected based on updates to the corresponding report, Report ITU-R SA.2307.

## **Preferred frequency bands for radio astronomical measurements below 1 THz**

This revision of Recommendation ITU-R RA.314-10 updates information regarding the preferred frequency bands for radio astronomical measurements. Revisions include:

- 1 Title revision to reflect frequency range of this Recommendation.
- 2 Addition of section on "scope," to be consistent with ITU-R format requirements.
- 3 New *considering f)*, regarding observations of highly redshifted spectral lines.
- 4 Editorial revisions of *considering d)*, *g)*, and *h)*.
- 5 Additional noting referencing Recommendation ITU-R RA.1860.
- 6 Revisions to Tables 1, 2, and 3.
- 7 Addition of Table 4: Frequency bands associated with observations of redshifted neutral hydrogen.
- 8 Revision of Figure A.1 in the Annex.
- 9 Addition of Figure A.2 in the Annex: illustrating the wealth of spectral lines detected in radio astronomy observations.
- 10 Addition of Figure A.3 in the Annex: Illustration of frequency bands associated with redshifts of HI, CO, and other spectral lines.
- 11 Addition of Figure A.4 in the Annex: illustrating the preferred bands for continuum observations.

## **Typical technical and operating characteristics for spaceborne radar sounder systems using the 40-50 MHz band**

The proposed revisions clarify the mission concept and the characteristics of potential future spaceborne radar sounders operating in the 40-50 MHz range.

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