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| **Radiocommunication Advisory Group** | C:\Users\murphy\AppData\Local\Temp\Temp1_ITU logo Entire package.zip\jpg\ITU official logo_blue_RGB.jpg | |
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|  | | **Addendum 1 to Document RAG/58-E** |
| **22 March 2023** |
| **Original: English** |
| Director, Radiocommunication Bureau | | |
| report TO the thirtieth meeting  of the radiocommunication advisory group | | |
| STUDY GROUPS ACTIVITIES | | |

# 1 Working methods

Working methods for Study Groups (SGs) and Working Parties (WPs) were satisfactorily applied in accordance with Resolution ITU-R 1 and the associated Guidelines for the working methods, which were updated in 2020.

# 2 Access to meeting documents

In line with the provisions of Resolution ITU-R 1, meeting documents are posted by SGD staff within one working day “as received” on a webpage established for this purpose, and the official versions are posted on the website within three working days.

BR SGD is exploring ways for automatic posting of “as received” contributions. Automatising this task will free resources that could be dedicated to other activities resulting in more efficient management of documentation and support to meetings.

# 3 Electronic working facilities

There is continuing emphasis on the use of electronic facilities, which has brought considerable benefit to delegates as well as a significant reduction in paper consumption.

## 3.1 SharePoint website

Access to documentation during meetings via a dedicated SharePoint website is the standard practice.

SharePoint sites for Correspondence and Rapporteur Groups are also used extensively in the periods between the WP meetings.

## 3.2 File synchronization

The file synchronization facility has been updated for all SG/WP meetings to facilitate access to the most recent versions of documents during meetings and to the meeting room assignments.

## 3.3 Physical meetings with remote participation

As indicated in the Summary of Conclusions of the 29th meeting of RAG held from 11 to 14 April 2022 (see Administrative Circular [CA/260](https://www.itu.int/md/R00-CA-CIR-0260/en)), ITU-R SGs and WPs resumed physical meetings with remote participation as of April 2022. The platform used for these physical meetings with remote participation is Zoom and it allows interactive remote participation of chairmen and delegates.

All meeting arrangements were made in agreement with the respective SGs leadership. Resuming physical meetings helped to progress the work and contributed to finalise the draft CPM texts by the deadline of 21 October 2022.

BR SGD also worked closely with IS Department and ITU-R Registration teams to make use of the CRM system for registration procedures identifying if delegates intended to participate remotely or they intended to attend the meeting physically. This was useful to identify the size of the meeting rooms required for each group.

Audio webcasts of all available languages have been provided during the plenary sessions of all SGs and WPs meetings.

Interpretation into the six official languages of the Union was also provided for physical meetings with remote participation of SGs.

## 3.4 Study Group webpages

In alignment with the ITU policy, updates to webpages are continuously performed in order to provide necessary information to delegates.

The list of CGs/RGs can be found on each SG main page under a specific link and they are aligned for all SGs. Following the link for each CG/RG, the user can access the information about the group name, the SharePoint page, the Rapporteur/Chairman/Convener, the mailing list, the archive, etc. and other necessary information.

## 3.5 Captioning

Since December 2013, all SG meetings have been provided with live captioning in English. However, this feature has an impact on the costs of the meeting, in particular if the meetings are held outside of ITU premises.

# 4 Participation

There has been a considerable increase in the level of participation in ITU-R SGs and WPs meetings since 2003 particularly, in 2020, in 2021 and in 2022 when all meetings have been held electronically or physically with remote participation. This is very encouraging, but at the same time it might create some difficulties if those numbers are used to estimate future participation in in-person meetings.

Participation in the largest groups can now exceed 600 attendees. The average participation per meeting is now of the order of 256 participants physically present (see Figure 1 below).

Figure 1

General average participation to ITU-R Study Group/  
Working Party meeting per year since 2003

\* Higher values corresponding to a year with fewer meetings but with more participants, e.g., CPM‑2.

\*\* Higher values corresponding to a year when most of the meetings have been held electronically or when there were physical meetings with remote participation.

# 5 Meeting rooms

The shortage of meeting rooms at ITU Headquarters continues to hinder the effective planning of meetings. This problem has been exacerbated by the following factors:

– the increased number of meetings being arranged by all of the Sectors and the General Secretariat;

– the shortage of meeting rooms with a capacity of more than 120 participants;

– the need to avoid overlap and clashes of meeting dates;

– the limited availability and very long lead times required for bookings in alternative facilities, such as CICG;

– the demolition of Varembé building and the construction of the new ITU building, which will have an impact on a large number of meeting rooms, as during the demolition, the meeting rooms in the Tower and Montbrillant buildings will not be useable due to the noise.

Consequently, as of January 2024 an increasing number of meetings will need to be held at other locations outside ITU or as a mixture of physical and remote participation. To that end, offers from the membership to host SGs/WPs meetings during this period will be particularly welcome.

# 6 Activities in the Study Groups

Some of the activities and other ongoing standardization studies in each SG are described below. The table below summarizes the studies carried out since RAG-22 as well as the production of ITU‑R Recommendations and ITU-R Reports approved since then.

| Study Group | Status of studies | | | | |
| --- | --- | --- | --- | --- | --- |
| Recommendations ITU-R approved | Reports ITU-R approved | Questions ITU-R approved | Handbooks ITU-R approved | Opinions ITU-R approved |
| **SG 1** | SM.1875‑4, SM.2149‑0, SM.2151‑0, SM.2152‑0 | SM.2015-2, SM.2153-9, SM.2179-1, SM.2257-6, SM.2352-1, SM.2422-2, SM.2451-1, SM.2452-1, SM.2503-0, SM.2504-0, SM.2505-0 | 210-4/1, 243/1 |  |  |
| **SG 3** | P.368-10, P.372-16, P.581-3, P.676-13, P.680-4, P.682-4, P.684‑8, P.841-7, P.1057-7, P.1622-1, P.2145-0, P.2146-0, P.2147-0, P.2148-0 |  | 202-5/3 |  |  |
| **SG 4** |  | BO.2397-1, M.2513‑0, M.2514‑0, S.2515-0 |  |  |  |
| **SG 5** | M.585-9, F.1520-4, M.1730-2, M.1732-3, M.1849-3, M.2010-2, M.2058-1, M.2135-1 | M.2417-1, M.2516‑0, M.2517‑0, M.2518‑0, M.2519‑0, M.2520-0 |  | A tutorial on frequency adaptive communication systems in the HF bands |  |
| **SG 6** | BS.643-4, BS.775-4, BS.1660-9, BS.2125‑1, BS.2051‑3, BT.1790‑1, BT.1833‑4, BT.2016‑3, BS.2107‑1, BT.2144‑0, BT.2153‑0, BT.2154-0 | BS.2159-9, BS.2214-6, BS.2388-4, BS.2466-1, BS.2502-0, BS.2503-0, BT.2049-8, BT.2207-6, BT.2245-10, BT.2295-4, BT.2299-3, BT.2301-4, BT.2383-4, BT.2385-1, BT.2408-5, BT.2420-5, BT.2485-1, BT.2506-0 | 147/6 |  | 104/6 |
| **SG 7** | SA.2155-0, SA.2156‑0 | RA.2188-1, RA.2507-0, RA.2508-0, RA.2509-0, RA.2510-0, RA.2512-0, TF.2511-0 | 260/7 |  |  |

## 6.1 Study Group 1

Study Group 1 is continuing to develop ITU-R Recommendations, Reports and Handbooks related to spectrum management principles and techniques, general principles of sharing, spectrum monitoring, long-term strategies for spectrum utilization, economic approaches to national spectrum management, automated techniques and assistance to developing countries in cooperation with the Telecommunication Development Sector. Its studies also include methods for identification and elimination of interference, unwanted emissions, maintenance of data dictionary, spectrum redeployment, spectrum use measurement, unlicensed and shared uses of spectrum, dynamic spectrum access, smart grids and wireless power transmission.

Working Parties 1A, 1B and 1C held a physical meeting with remote participation in June-July 2022 and SG 1 met in July 2022. Since RAG-22, one new and one revised ITU‑R Questions, three new and one revised ITU-R Recommendations were developed and subsequently adopted and approved. SG 1 also approved three new and eight revised ITU‑R Reports. One ITU‑R Recommendation was also editorially amended.

Question ITU-R:

– 210-4/1 “Wireless power transmission”

– 243/1 “Impact of unintentional radio frequency energy generated by electrical or electronic apparatus to the radiocommunication services”

Recommendation ITU-R:

– SM.1875-4 “DVB T/T2 coverage measurements and verification of planning criteria”

– SM.2149-0 “Guidance on supplementary elements on the use of Appendix **10** of the Radio Regulations to convey information related to harmful interference to space radiocommunication services”

– SM.2151-0 “Guidance on frequency ranges for operation of wireless power transmission via radio frequency beam for mobile/portable devices and sensor networks”

– SM.2152-0 “Complementing current radio frequency delivery mechanisms using optical wireless communication”

Report ITU-R:

– SM.2015-2 “Methods for determining national long-term strategies for spectrum utilization”

– SM.2153-9 “Technical and operating parameters and spectrum use for short-range radiocommunication devices”

– SM.2179-1 “Short-range radiocommunication devices measurements”

– SM.2257-6 “Spectrum management and monitoring during major events”

– SM.2352-1 “Technology trends of active services in the frequency range 275-3 000 GHz”

– SM.2422-2 “Visible light for broadband communications”

– SM.2451-1 “Assessment of impact on radiocommunication services from wireless power transmission for electric vehicle operating below 30 MHz”

– SM.2452-1 “Electromagnetic field measurements to assess human exposure”

– SM.2503-0 “Evaluation of radiated electromagnetic disturbances of household appliances and their interferences over an Internet of Things network in the 915 MHz frequency band”

– SM.2504-0 “Methods for the estimation of coverage for terrestrial radio services based on population”

– SM.2505-0 “Impact studies and human hazard issues for wireless power transmission via radio frequency beam”

The next meetings of WPs 1A, 1B and 1C are scheduled outside Geneva from 29 May to 2 June 2023. SG 1 is scheduled to meet in Geneva on 5 and 6 June 2023. These will be the last meetings of SG 1 block for the 2019-2023 study period.

## 6.2 Study Group 3

In furthering its work on propagation measurement, data analysis, modelling and prediction in various parts of the spectrum up to 375 THz, thereby laying the foundation for the design of radiocommunication systems and the assessment of interference, SG 3 continues to revise or develop new recommendations, reports and handbooks under its purview. SG 3 and its working parties also continue to provide assistance to all other ITU-R SGs on radio wave propagation prediction aspects, most notably those relating to system design and sharing studies, as often required in support of work on WRC agenda items.

Four new and ten revised ITU-R Recommendations were adopted and approved since RAG-22. Seven ITU‑R Recommendations were also editorially amended. In addition, one new ITU-R Question was approved by ITU-R SG 3.

In order to progress with their work, WPs 3J, 3K, 3L and 3M established several additional Correspondence Groups (currently 33 active CGs), which resulted in an important increase of their working hours between official meetings. This is the continuing working practice of these Working Parties, which have used Correspondence Groups in this manner for more than a decade, particularly noting the fact that these Working Parties meet usually only once a year and that the topics of work sometimes span periods of longer than five or even ten years in preparation. It should therefore not be seen that the use of Correspondence Groups in this manner has been followed specifically and only due to the situation created by the COVID-19 pandemic.

In 2022, the P-series recommendations remain the most popular of all ITU-R series of recommendations, with over 33 000 downloads more than second most popular series, which reflects its importance to all users of radio systems within the ITU and the greater radio communications community.

Recommendation ITU-R:

– P.368-10 “Ground-wave propagation prediction method for frequencies between 10 kHz and 30 MHz”

– P.372-16 “Radio noise”

– P.581-3 “The concept of "worst month"”

– P.676-13 “Attenuation by atmospheric gases and related effects”

– P.680-4 “Propagation data required for the design of Earth-space maritime mobile telecommunication systems”

– P.682-4 “Propagation data required for the design of Earth-space aeronautical mobile telecommunication systems”

– P.684-8 “Prediction of field strength at frequencies below about 150 kHz”

– P.841-7 “Conversion of annual statistics to worst-month statistics”

– P.1057-7 “Probability distributions relevant to radiowave propagation modelling”

– P.1622-1 “Prediction methods required for the design of Earth-space systems operating between 20 THz and 375 THz”

– P.2145-0 “Digital maps related to the calculation of gaseous attenuation and related effects”

– P.2146-0 “Sea surface bistatic scattering”

– P.2147-0 “Acquisition, presentation, analysis and use of digital products in studies of radiowave propagation”

– P.2148-0 “Digital maps related to surface wind speed statistics”

Question ITU-R:

– 202/5 “Methods for predicting propagation over the surface of the Earth”

The next block meeting for WPs 3J, 3K, 3L and 3M is scheduled from 22 May to 1 June 2023 and that of SG 3 on 2 June 2023. These will be the last meetings of SG 3 block for the 2019-2023 study period.

## 6.3 Study Group 4

Study Group 4 is continuing to study fixed, mobile, broadcasting and radiodetermination-satellite systems and networks characteristics, air interfaces, performance and availability objectives as well as sharing of orbit/spectrum resources among GSO and non-GSO satellite systems, enabling the sustainable development of the space ecosystem.

Study Group 4 Working Parties completed the preparatory work for WRC-23 under the agenda items for which they are the leading groups as well as for other agenda items for which they are contributing groups. Progress was also made on the development of the draft new Handbook on small satellites.

Working Parties 4A, 4B and 4C had established several Correspondence Groups between official meetings in order to progress their work.

Since RAG-22, SG 4 has approved three new and one revised ITU-R Reports.

Report ITU-R:

– BO.2397-1 “Satellite transmissions for UHDTV satellite broadcasting”

– M.2513-0 “Studies regarding the protection of the primary radionavigation-satellite service (space-to-Earth) by the secondary amateur and amateur-satellite services in the frequency band 1 240-1 300 MHz”

– M.2514-0 “Vision, requirements and evaluation guidelines for satellite radio interface(s) of IMT-2020”

– S.2515-0 “Uplink interference considerations in the frequency band 7 025-7 075 MHz for a broadcasting-satellite service (sound) in Region 2”

WPs 4A and 4C finalized the draft CPM texts for the WRC-23 agenda items, for which they were responsible, within the deadline of 21 October 2022.

The process of developing ITU-R deliverables for the satellite component of the IMT-2020 radio interface(s) commenced in WP 4B with the invitation for submission of proposals for candidate radio interface technologies (RITs) or a set of RITs (SRITs) for the satellite component of IMT-2020.

The next meeting of WPs 4A, 4B and 4C is convened from 21 June to 6 July. SG 4 meeting is scheduled on 7 July 2023. These will be the last meetings of SG 4 block for the 2019-2023 study period.

## 6.4 Study Group 5

Study Group 5 is continuing studies on systems and networks for the fixed, mobile (terrestrial, maritime and aeronautical), radiodetermination (including both, radiolocation and radionavigation), amateur and amateur-satellite services, paving the way for the continuing development of all these services, including IMT, HAPS, ITS and PPDR.

Eight revised ITU-R Recommendations and five new and one revised ITU-R Reports pertaining to the scope of SG 5 were approved. WP 5C approved a new Handbook on “A tutorial on frequency adaptive communication systems in the HF bands”. This Handbook explains the development and deployment of HF adaptive systems, describes the essential parts of an adaptive network, and addresses relevant regulatory and operational considerations.

In addition, one ITU-R Recommendation was suppressed (i.e., Recommendation ITU-R M.1307).

Recommendation ITU-R:

– F.1520-4 “Radio-frequency arrangements for systems in the fixed service operating in the band 31.8-33.4 GHz”

– M.585-9 “Assignment and use of identities in the maritime mobile service”

– M.1730-2 “Characteristics of and protection criteria for the radiolocation service in the frequency band 15.4-17.3 GHz”

– M.1732-3 “Characteristics of systems operating in the amateur and amateur-satellite services for use in sharing studies”

– M.1849-3 “Technical and operational aspects of ground-based meteorological radars”

– M.2010-2 “Characteristics of a digital system, referred to as navigational data for broadcasting maritime safety and security related information from shore-to-ship in the 500 kHz band”

– M.2058-1 “Characteristics of a digital system, referred to as navigational data for broadcasting maritime safety and security related information from shore-to-ship in the maritime HF frequency band”

– M.2135-1 “Technical characteristics of autonomous maritime radio devices operating in the frequency band 156-162.05 MHz”

Report ITU-R:

– M.2417-1 “Technical and operational characteristics of land-mobile service applications in the frequency range 275-450 GHz”

– M.2516-0 “Future technology trends of terrestrial International Mobile Telecommunications systems towards 2030 and beyond”

– M.2517-0 “Coexistence between land-mobile and fixed service applications operating in the frequency range 252-296 GHz”

– M.2518-0 “Terrestrial International Mobile Telecommunications for remote sparsely populated areas providing high data rate coverage”

– M.2519-0 “Protection of radio receivers installed onboard vessels against electromagnetic interference from light emitting diode lighting systems and other interfering sources”

– M.2520-0 “The use of the terrestrial component of International Mobile Telecommunications for the Cellular-Vehicle-to-Everything”

Handbook ITU-R:

– A tutorial on frequency adaptive communication systems in the HF bands

Working Parties 5A, 5B, 5C and 5D finalized the draft CPM texts for the WRC-23 agenda items, for which they were responsible, within the deadline of 21 October 2022.

During the 41st meeting of WP 5D, a Workshop on “IMT for 2030 and beyond” was held on 14 June 2022 to provide WP 5D delegates with an overview and an understanding of ongoing worldwide research activities and initiatives on future mobile communications targeting 2030 and beyond.

Regarding ongoing studies referred to in Document [550](https://www.itu.int/md/R16-WRC19-C-0550/en) of WRC-19 for the “Verification of RR No. **21.5** for the notification of IMT stations operating in the frequency band 24.45-27.5 GHz which use an antenna that consists of an array of active elements”, WP 5D, at its 43rd meeting (31 January to 9 February 2023), dispatched a preliminary Note to the BR Director informing him that WP 5D is continuing its work on this subject.

Working Parties 5A and 5C meetings are scheduled from 9 to 18 May 2023 and WP 5B meeting is scheduled from 10 to 21 July 2023. The 43rd meeting of WP 5D will be held from 12 to 22 June 2023. SG 5 meeting is planned on 25 and 26 September 2023.

## 6.5 Study Group 6

Study Group 6 is continuing studies on radiocommunication broadcasting, particularly on emerging topics including advanced technologies for terrestrial digital broadcasting, a global platform for the broadcasting service, high dynamic range television (HDR-TV), integrated broadcast-broadband (IBB) systems, new audio and video codecs for digital broadcasting, Advanced Immersive Audio‑Visual (AIAV) systems, renderer specifications for advanced sound systems, application of Artificial Intelligence for broadcasting, audio‑visual accessibility (AVA), and preparation for WRC‑23 agenda items or issues related to broadcasting services.

Study Group 6 has also been actively coordinating the work of mutual interest with ITU-T SGs 9 and 16 through the Intersector Rapporteur Group (IRG) on Audio-Visual Accessibility (IRG‑AVA).

One new ITU-R Question, three new and nine revised ITU-R Recommendations; and three new and fifteen revised Reports were approved. In addition, one ITU-R Recommendation was editorially updated. Working Parties 6A, 6B and 6C also approved Opinion ITU-R 104 on “Advice for sustainability strategies incorporating carbon offsetting policies”.

Question ITU-R:

– 147/6 “Energy Aware Broadcasting Systems”

Recommendation ITU-R:

– BS.643-4 “Radio data system for automatic tuning and other applications in FM radio receivers for use with pilot-tone system”

– BS.775-4 “Multichannel stereophonic sound system with and without accompanying picture”

– BS.1660-9 “Technical basis for planning of terrestrial digital sound broadcasting in the VHF band”

– BS.2051-3 “Advanced sound system for programme production”

– BS.2107-1 “Use of International Radio for Disaster Relief (IRDR) frequencies for emergency broadcasts in the High Frequency (HF) bands”

– BS.2125-1 “A serial representation of the Audio Definition Model”

– BT.1790-1 “Requirements for monitoring of broadcasting chains during operation”

– BT.1833-4 “Broadcasting of multimedia and data applications for mobile reception by handheld receivers”

– BT.2016-3 “Error-correction, data framing, modulation and emission methods for terrestrial multimedia broadcasting for mobile reception using handheld receivers in VHF/UHF bands”

– BT.2144-0 “Guidance for the introduction of new DTTB systems, technologies and applications in the broadcasting service”

– BT.2153-0 “The use of componentized workflows for the exchange of non-live television programmes”

– BT.2154-0 “High-level system architecture for immersive video for presentation on various types of display devices”

Report ITU-R:

– BS.2159-9 “Multichannel sound technology in home and broadcasting applications

– BS.2214-6 “Planning parameters for terrestrial digital sound broadcasting systems in VHF bands”

– BS.2388-4 “Usage Guidelines for the Audio Definition Model and Multichannel Audio Files”

– BS.2466-1 “Guidelines for the use of the ITU-R ADM Renderer”

– BS.2502-0 “Measuring techniques for digital audio broadcast coverage performance”

– BS.2503-0 “In-band, on-channel digital sound (System C) transmission systems: Considerations for operational installations”

– BT.2049-8 “Broadcasting of multimedia and data applications for mobile reception

– BT.2207-6 “Accessibility to broadcasting services for persons with disabilities

– BT.2245-10 “ HDTV and UHDTV including HDR-TV test materials for assessment of picture quality”

– BT.2295-4 “Digital terrestrial broadcasting systems”

– BT.2299-3 “Broadcasting for public warning, disaster mitigation and relief”

– BT.2301-4 “National field reports on the introduction of IMT in the bands with co-primary allocation to the broadcasting and the mobile services”

– BT.2383-4 “Typical frequency sharing characteristics for digital terrestrial television broadcasting systems in the frequency band 470-862 MHz”

– BT.2385-1 “Reducing the environmental impact of terrestrial broadcasting systems”

– BT.2408-5 “Guidance for operational practices in HDR television production”

– BT.2420-5 “Collection of usage scenarios of advanced immersive sensory media systems”

– BT.2485-1 “Advanced network planning and transmission methods for enhancements of digital terrestrial television broadcasting”

– BT.2506-0 “Requirements for spatial characteristics of an ideal head-mounted display for immersive video”

Task Group (TG) 6/1 met from 5 to 16 September 2022 and finalized the draft CPM text in response to WRC-23 agenda item 1.5 within the deadline of 21 October 2022. Thus, at the September 2022 meeting, SG 6 decided to disband the TG 6/1 from then on.

Study Group 6 and its WPs meetings are scheduled from 6 to 17 March 2023. During SG 6 block of meetings in March 2023, a workshop on “Broadcasting in times of crisis” as well as demonstrations on advanced broadcasting technologies were organised.

**6.6 Study Group 7**

Study Group 7 is continuing to develop ITU-R Recommendations, Reports and Handbooks that are used for development and for ensuring non-interference into the operation of space operation, space research, Earth-exploration and meteorological systems (including the related use of links in the inter-satellite service), radio astronomy and radar astronomy; and for the dissemination, reception and coordination of standard-frequency and time-signal services (including the application of satellite techniques) on a worldwide basis.

The systems addressed by SG 7 are used in activities that are a critical part of our everyday life such as:

– definition and dissemination of Coordinated Universal Time;

– global environment monitoring – atmosphere (including greenhouse gases emissions), oceans, land surface, biomass, etc.;

– weather forecasting and climate change monitoring and prediction;

– detection and tracking of many natural and man-made disasters (earthquakes, tsunamis, hurricanes, forest fires, oil leaks, etc);

– providing alerting/warning information;

– damage assessment and planning relief operations;

– monitoring and mitigation of space weather events.

Two new ITU-R Recommendations, one new ITU-R Question, and six new and one revised ITU-R Reports were approved.

Question ITU-R:

– 260/7 “Radio astronomy in the shielded zone of the Moon”

Recommendations ITU-R:

– SA.2155-0 “Guidelines on the use of the frequency band 2 200-2 290 MHz by Earth exploration-satellite service/space research service/space operation service satellite networks or systems that are not using spread-spectrum modulation”

– SA.2156-0 “Guidelines on the use of the frequency band 2 025-2 110 MHz by Earth exploration-satellite service/space research service/space operation service satellite networks or systems that are not using spread-spectrum modulation”

Report ITU-R:

– RA.2188-1 “Power flux-density and e.i.r.p. levels potentially damaging to radio astronomy receivers”

– RA.2507-0 “Technical and operational characteristics of the existing and planned Geodetic Very Long Baseline Interferometry”

– RA.2508-0 “Widely-distributed radio astronomy array systems operating above 200 GHz”

– RA.2509-0 “Technical and operational characteristics of radio astronomy systems operating below 350 MHz (85 cm)”

– RA.2510-0 “Technical and operational characteristics of radio astronomy systems in the 67-116 GHz (3-4 mm) range”

– RA.2512-0 “Technical and operational characteristics of broadband, background-limited detectors operating in the millimetre-wave regime”

– TF.2511-0 “Content and structure of time signals to be disseminated by radiocommunication systems and various aspects of current and potential future reference time scales, including their impacts and applications in radiocommunication”

Working Parties 7B and 7C finalized the draft CPM texts for the WRC-23 agenda items, for which they were responsible, within the established deadline of 21 October 2022.

Working Party 7A will meet from 26 to 30 June 2023, while WPs 7B, 7C and 7D are planned to meet from 2 to 12 October 2023. The next meeting of Study Group 7 is scheduled for 13 October 2023. These will be the last meetings of SG 7 block for the 2019-2023 study period.

## 6.7 Coordination Committee for Vocabulary

The Coordination Committee for Vocabulary (CCV) is continuing to assist in ensuring the consistency among the various ITU-R terms and definitions, filter all the proposals coming from the Radiocommunication Study Groups and validate the terms and definitions before introducing them into the [ITU Terms and definitions database](https://www.itu.int/br_tsb_terms/#/). CCV is responsible for coordination and approval concerning:

− vocabulary, including abbreviations and initials;

− related subjects (quantities and units, graphical and letter symbols).

ITU-R CCV is responsible for reviewing and revising, where necessary, the existing Recommendations of the V series; new and revised Recommendations should be adopted by ITU-R CCV and submitted for approval in accordance with Resolution ITU-R 1, through the Director the BR.

After the adoption of Council [Resolution 1386](https://www.itu.int/md/S17-CL-C-0127/en), “ITU Coordination Committee for Terminology (ITU CCT)”, the ITU CCT meetings are conducted with extensive use of electronic methods. Work is progressing on improvements to the ITU terminology database.

The ITU CCT is composed of:

− ITU-R CCV functioning in accordance with Resolution ITU-R 36;

− ITU-T SCV functioning in accordance with WTSA Resolution 67 (Rev. Geneva, 2022), and − representatives of ITU-D.

All of them working in close collaboration with the ITU General Secretariat (Conferences and Publications Department) and the editors in the Bureaux.

ITU-R and ITU-T study groups, within their terms of reference, should continue their work on technical and operational terms and their definitions in English only.

The next meeting of CCT is scheduled on 18 April 2023.

## 6.8 RA-23, WRC-23 and CPM27-1 preparations

See section 5 of Doc. [RAG/58](https://www.itu.int/md/R20-RAG-C-0058/en).

# 7 Liaison and collaboration with ITU-D and ITU-T, and with other organizations

Intersectoral activities have continued throughout the period, particularly concerning ITU’s priority topics of climate change, emergency communications and accessibility.

*•* *ITU-D*

BR continues to contribute to the BDT workshops and seminars.

BR actively participated in the meetings of the ITU-D SGs to provide the latest development in the activities of the ITU-R SGs, as well as guidance on ITU-R Recommendations, Reports and Handbooks of particular interest to developing countries.

*•* *ITU-T*

In addition to climate change and emergency communications, topics of mutual interest between ITU‑R and ITU-T include IMT, the effects of human exposure to radio frequencies, power line transmission systems, smart grid, smart cities, EMC/EMI, intelligent transport systems, audio-visual media accessibility, common patent policy and intellectual property rights.

*•* *Other organizations*

Healthy liaison has continued between ITU-R SGs and other organizations, with due reference to Resolution [ITU-R 9](https://www.itu.int/pub/R-RES-R.9), where required.

The Bureau continued to maintain close cooperation with several organizations with the following objectives:

1. promote dialogue amongst bodies having common interests;
2. improve coordination leading to more effective preparation for events such as WRCs; and
3. keep ITU-R abreast of relevant activities in other organizations for a more strategic planning of work programmes.

The Bureau continues its close collaboration with the relevant international and regional organizations including, but not limited to:

− APT, ASMG, ATU, CEPT, CITEL and RCC for regional coordination;

− ABU, ASBU, EBU, SMPT, ETSI and HFCC for broadcasting matters;

− ITSO, ESOA, GVF, GSMA for the use of specific radiocommunication systems and services;

− 3GPP, IEEE and several regional standardization organizations for activities related to the Global Standards Collaboration (GSC);

− The World Meteorological Organization, the World Health Organization, ISO and IEC (including CISPR), Space Frequency Coordination Group, the International Union of Radio Science (URSI) and several others on an ad-hoc basis for liaison with respect to SG activities;

− UN Committee on the Peaceful Uses of Outer Space (UN-COPUOS), the United Nations Economic Commission for Europe (UNECE), the International Maritime Organization (IMO), the International Mobile Satellite Organization (IMSO), Bureau International des Poids et Mesures (BIPM), the International Telecommunications Satellite Organization (ITSO), COSPAS-SARSAT, the International Committee of the Red Cross (CICR), the International Civil Aviation Organization (ICAO) with regard to the application of ITU treaty texts.

# 8 Other intersectoral activities

BR has actively participated in other intersectoral activities that are relevant to the work of ITU‑R SGs, as described below:

*–* Climate Change and Emergency Communications: The BR participates in the Intersectoral activities coordinated by the ITU Climate Change and Emergency Telecommunications Task Force for the implementation of Resolution 136 (Rev. Bucharest, 2022). There are also studies in response to Resolution [ITUR 60-2](https://www.itu.int/pub/R-RES-R.60) (Reduction of energy consumption for environmental protection and mitigating climate change by use of ICT/radiocommunication technologies and systems).

– Accessibility: ITU-R has been actively participating in the ITU-T JCA-AHF (Joint Coordination Activity on Accessibility and Human Factors).

– WSIS and CWG on WSIS and SDGs: In response to Resolution 140 (Rev. Bucharest, 2022) of the Plenipotentiary Conference on “ITU’s role in implementing the outcomes of the World Summit on the Information Society and the 2030 Agenda for Sustainable Development, as well as in their follow-up and review processes”, ITU-R liaises with the CWG on WSIS and SDGs, and contributes with the updates on the work carried out by the ITU-R Study Groups. BR SGD has prepared and published a website that lists the ITU-R publications related to each SDG. This can be found here: <https://www.itu.int/en/ITU-R/study-groups/Pages/Sustainable-dev-goals.aspx>.

– The Bureau is continuing its participation in the activities related to the major ITU events, conferences and meetings. These activities are in support of the Plenipotentiary Conference, the ITU Council, WTSA and WTDC.

## 9 Follow-up actions requested by RAG at its meeting in 2022

During its last meeting in April 2022 and as contained in the Summary of Conclusions (Administrative Circular [CA/260](https://www.itu.int/md/R00-CA-CIR-0260/en"HYPERLINK "https://www.itu.int/md/R00-CA-CIR-0256/en)), concerning the RAG encouragement to have WPs and WGs agendas available as ADM documents, this request was conveyed to the relevant Chairmen.

As many WPs and their WGs have implemented this action, it is necessary to consider that, on some occasions, the workload of BR SGD Secretariat increased, preventing it to focus on the processing of TEMP documents with higher priority.

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