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| **Radiocommunication Study Groups** |  |
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|  | **Document 5A/597-E** |
| **21 June 2022** |
| **English only** |
| Chairman, Working Party 5A |
| report on the TWENTY-SEVENTH meeting of working party 5a |
| (Geneva, 23 May – 3 June 2022) |

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[1](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N01%21MSW-E.docx) Working Party 5A Management

[2](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N02%21MSW-E.docx) Consolidation of texts approved by Working Party 5A

[3](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N03%21MSW-E.docx) Consolidation of reports from the Working Groups of Working Party 5A
(*Source:* Docs. 5A/TEMP/ 213, 222, 231, 240, 243, 244;
*Attachments:* Docs. 5A/TEMP/ 207R1, 208R1, 235)

[4](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N04%21MSW-E.docx) Draft CPM text for WRC-23 agenda item 1.3
(*Source:* Doc. 5A/ TEMP/242R1)

[5](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N05%21MSW-E.docx) Report of activities in support of WRC-23 agenda item 1.3
(*Source:* Doc. 5A/ TEMP/241R1)

[6](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N06%21MSW-E.docx) Draft CPM text for WRC-23 agenda item 9.1 topic b)
(Source: Doc. 5A/TEMP/198R1)

[7](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N07%21MSW-E.docx) Report of activities in support of WRC-23 agenda item 9.1 topic b)
(*Source:* Doc. 5A/TEMP/217R1)

[8](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N08%21MSW-E.docx) Draft CPM text for WRC-23 agenda item 9.1 topic c) (*Source:* Doc. 5A/TEMP/230)

[9](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N09%21MSW-E.docx) Report of activities in support of WRC-23 agenda item 9.1 topic c)
(*Source:* Doc. 5A/TEMP/222)

[10](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N10%21MSW-E.docx) Preliminary draft new Report ITU-R M.[AMATEUR.CHARACTERISTICS] –
“Amateur and amateur-satellite services characteristics and usage in the 1 240-1 300 MHz frequency band” (*Source:* Doc. 5A/TEMP/218R1)

[11](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N11%21MSW-E.docx) Working document towards preliminary draft new Recommendation ITU-R
M.[AS GUIDANCE] – “Guidance on technical and operational measures for the use of the frequency band 1 240-1 300 MHz by the Amateur and Amateur-satellite service in order to protect the RNSS (space-to-Earth)” (*Source:* Doc. 5A/TEMP/214)

[12](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N12%21MSW-E.docx) Preliminary draft revision of Recommendation ITU-R M.1732-2 – “Characteristics of systems operating in the amateur and amateur-satellite services for use in sharing studies” (*Source:* Doc. 5A/TEMP/220R1)

[13](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N13%21MSW-E.docx) Working document towards a preliminary draft revision of Report ITU-R M.2442-0 – “Current and future usage of railway radiocommunication systems between train and trackside” (*Source:* Doc. 5A/TEMP/205)

[14](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N14%21MSW-E.docx) Working document towards a preliminary draft new Recommendation ITU-R M.[RSTT\_FRQ] – “Harmonization of spectrum for use by Railway Radiocommunication Systems between Train and Trackside (RSTT) within the frequency bands allocated to the mobile service” (*Source:* Doc. 5A/TEMP/206R1)

[15](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N15%21MSW-E.docx) Working document towards a preliminary draft revision of Recommendation ITU-R M.1450-5 – “Characteristics of broadband radio local area networks”
(*Source:* Doc. 5A/TEMP/236)

[16](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N16%21MSW-E.docx) Working document towards a preliminary draft revision of Recommendation ITU-R M.1801-2 – “Radio interface standards for broadband wireless access systems, including mobile and nomadic applications, in the mobile service”
(*Source:* Doc. 5A/TEMP/238)

[17](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N17%21MSW-E.docx) Working document towards a preliminary draft new Report ITU-R M.[bb-WAS.freq] – “Frequencies used by systems based on radio interface standards for broadband wireless access” (*Source:* Doc. 5A/TEMP/237)

[18](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N18%21MSW-E.docx) Working document towards a preliminary draft new Report ITU-R M.[UTILITIES] – Utility Radiocommunication Systems (*Source:* Doc. 5A/TEMP/239)

[19](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N19%21MSW-E.docx) Working document towards a preliminary draft new Report ITU-R M.[AUDIO-PMSE\_LMS] – [“Status and trends regarding regional and global usage of audio applications of PMSE in the land mobile service”] (*Source:* Doc. 5A/TEMP/234R1)

[20](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N20%21MSW-E.docx) Working document toward a preliminary draft revision of Report ITU-R M.2377-1 – “Radiocommunication objectives and requirements for Public Protection and Disaster Relief” (*Source:* Doc. 5A/TEMP/197)

[21](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N21%21MSW-E.docx) Working document towards a preliminary draft revision of Resolution ITU-R 55-3 – “ITU-R studies of disaster prediction, detection, mitigation and relief”
(*Source:* Doc. 5A/TEMP/196)

[22](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N22%21MSW-E.docx) Working document towards a draft report for sharing and compatibility studies in compliance with Resolution **246 (WRC-19)** in relation with WRC-23 agenda item 1.3 (*Source:* Doc. 5A/TEMP/223)

[23](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N23%21MSW-E.docx) Preliminary draft new Report ITU-R M.[252-296 GHZ.LMS.FS.COEXIST] – “Coexistence between land-mobile and fixed service applications operating in the frequency range 252-296 GHz”
(*Source:* Doc. 5A/TEMP/200R1)

[24](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N24%21MSW-E.docx) Working document towards a preliminary draft new Report ITU-R M.[LMS.CONDITIONS>275GHz] – “Assessment of mitigation techniques and specific conditions to be applied to the land mobile service applications in the frequency bands 296-306 GHz, 313 318 GHz and 333-356 GHz, to ensure the protection of Earth exploration-satellite service (passive) applications in accordance with RR No. 5.564A” (*Source:* Doc. 5A/TEMP/199)

[25](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N25%21MSW-E.docx) Working document towards a preliminary draft new Report ITU-R M.[CAV] – “Connected Automated Vehicles (CAV)” (*Source:* Doc. 5A/TEMP/221R1)

[26](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N26%21MSW-E.docx) List of output documents

Annexes from previous WP5A Chairman’s Reports that are being carried forward:

[Annex 11](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0221%21N11%21MSW-E.docx) to [Doc. 5A/221](https://www.itu.int/md/R19-WP5A-C-0221/en): Working document towards preliminary draft revision of Recommendation ITU-R M.2134-0 – “[Receiver / Technical and operational] characteristics and protection criteria for systems in the mobile service in the frequency range 27.5-29.5 GHz for use in sharing and compatibility studies.”

[Annex 18](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0221%21N18%21MSW-E.docx) to [Doc. 5A/221](https://www.itu.int/md/R19-WP5A-C-0221/en): Elements for a working document towards a preliminary draft new [Report/Recommendation] ITU-R F.[IMT-FWB] – “Use of International Mobile Telecommunication systems for fixed wireless broadband in the frequency bands allocated to the fixed service on a primary basis.”

[Annex 17](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0359%21N17%21MSW-E.docx) to [Doc. 5A/359](https://www.itu.int/md/R19-WP5A-C-0359/en): Working document towards a preliminary draft revision of Report ITU-R M.2282-0 – “Systems for public mobile communications with aircraft”.

[Annex 19](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0359%21N19%21MSW-E.docx) to [Doc. 5A/359](https://www.itu.int/md/R19-WP5A-C-0359/en): Working document towards a preliminary draft revised Report ITU-R M.2116 – “Characteristics of broadband wireless access systems operating in the land mobile service for use in sharing studies”

[Annex 25](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0359%21N25%21MSW-E.docx) to [Doc. 5A/359](https://www.itu.int/md/R19-WP5A-C-0359/en): Working document towards a preliminary draft revision of Recommendation ITU-R M.2121-0 – “Harmonization of frequency bands for Intelligent Transport Systems in the mobile service”.

[Annex 24](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N24%21MSW-E.docx) to [Doc. 5A/491](https://www.itu.int/md/R19-WP5A-C-0491/en): Working document towards a preliminary draft revision of Report ITU-R M.2444-0 – Examples of frequency/channel arrangements for Intelligent Transport Systems deployments under the mobile service

[Annex 25](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N25%21MSW-E.docx) to [Doc. 5A/491](https://www.itu.int/md/R19-WP5A-C-0491/en): Working document towards a preliminary draft revision of Report ITU-R M.2479-0 – The use of land mobile systems, excluding IMT, for machine-type communications

[Annex 27](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N27%21MSW-E.docx) to [Doc. 5A/491](https://www.itu.int/md/R19-WP5A-C-0491/en): Working document towards a preliminary draft new Report ITU-R M.[LMS.SPEC.NEED.ABOVE.275 GHz] – Spectrum needs for land-mobile service applications in the frequency above 275 GHz

Management documents referred to in the Report:

List of input documents: [Doc. 5A/593](https://www.itu.int/md/R19-WP5A-C-0593/en)

Final list of participants: [Doc. 5A/596](https://www.itu.int/md/R19-WP5A-C-0596/en)

# 1 Introduction

Working Party 5A (WP5A) held its twenty-seventh (27th) meeting from 23 May – 3 June 2022. The meeting participants (see list in [Doc. 5A/596](https://www.itu.int/md/R19-WP5A-C-0596/en)) included 355 participants (9 of whom represented more than one organization), 78 physical and 274 remote, from 54 countries representing 47 Member States, 21 recognized operating agencies, 19 scientific or industrial organizations, 1 other entity dealing with telecommunication matters, 8 regional and other international organizations, 2 Intergovernmental Organizations Operating Satellite Systems, 1 associate, 2 academia, 1 guest and the ITU staff. WP5A held its opening plenary in one session on 23 May (agenda in [Doc. 5A/ADM/72R1](https://www.itu.int/md/R19-WP5A-ADM-0072/en)), and the closing plenary in three sessions over 2 days on 2-3 June 2022 (agenda in [Doc. 5A/ADM/103R1](https://www.itu.int/md/R19-WP5A-ADM-0103/en)). In addition, WP5A held a joint plenary with WP5C to approve the draft CPM text on agenda item 9.1 topic c) (agenda in [Doc. 5A/ADM/102](https://www.itu.int/md/R19-WP5A-ADM-0102/en)).

The meeting dealt with 130 input documents, 103 listed in [Doc. 5A/593](https://www.itu.int/md/R19-WP5A-C-0593/en), 25 carried over from previous meetings and the following 2 liaison rapporteur reports that arrived during the meeting:

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| **Doc. 5A/** | **Title** | **Source** | **Date** |
| [**595**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R19-WP5A-C-0595) | Report on the relevant activities in certain countries in Region 3  | [Liaison R3 Rapporteur](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R19-WP5A-C&source=Liaison%20R3%20Rapporteur) | 2022-06-02 |
| [**594**](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R19-WP5A-C-0594) | Report on relevant activities in certain countries in Region 1  | [Liaison Rapporteur](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R19-WP5A-C&source=Liaison%20Rapporteur) | 2022-05-27 |

Upon consideration of the input documents the meeting prepared 49 output temporary documents (see list in [Annex 26](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N26!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

The opening plenary meeting agenda in [Doc. 5A/ADM/72R1](https://www.itu.int/md/R19-WP5A-ADM-0072/en) was adopted and the SG5 Counsellor presented [Doc. 5A/INFO/4](https://www.itu.int/md/R19-WP5A-INF-0004/en).

The Chairman’s Report of the twenty-sixth meeting of WP5A ([Doc. 5A/491](https://www.itu.int/md/R19-WP5A-C-0491/en)) was adopted, including the objectives for the 27th meeting as presented in section 4 of [Doc. 5A/491](https://www.itu.int/md/R19-WP5A-C-0491/en).

The structure of WP5A for this meeting was also adopted as presented in section 2.2 of [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0491!N01!MSW-E) to [Doc. 5A/491](https://www.itu.int/md/R19-WP5A-C-0491/en), which is reproduced in [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N01!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en).

[Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N01!MSW-E) to this meeting report contains the management aspects of WP5A, including a summary of the status of the texts that are the responsibility of WP5A, the WP5A contacts in external organizations, and the use of electronic facilities.

The Chairman informed that all the WP5A proposals submitted to SG5 after the 26th meeting of WP5A were approved by Member States ([Doc. 5A/514](http://www.itu.int/md/R19-WP5A-C-0514)) and pointed out also to the reports of other relevant ITU-R meetings: the CCT conference call meeting of 8 February 2022 ([Doc. CCV/33](https://www.itu.int/md/R19-CCV-C-0033/en)), the meeting of the RAG on 11-14 April 2022 ([CA/260](https://www.itu.int/md/R00-CA-CIR-0260/en)), and Addendum 2 to Administrative Circular [CA/251](https://www.itu.int/md/R00-CA-CIR-0251/en) reconfirming the deadline of 21 October 2022 for the draft CPM text.

The Chairman drew the attention of the meeting to the WP5A texts that are listed in section 1 of [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0491!N01!MSW-E) to [Doc. 5A/491](https://www.itu.int/md/R19-WP5A-C-0491/en), the [Guide to the use of ITU-R texts related to the land mobile service](http://www.itu.int/oth/R0A06000001/en), and the [Guide to the use of ITU-R texts relating to the amateur and amateur-satellite services](http://www.itu.int/oth/R0A06000067) asking each Working Group to review the texts assigned to them. Canada presented [Doc. 5A/541](https://www.itu.int/md/R19-WP5A-C-0541/en) with a list of Reports and Recommendations that were approved prior to the year 2000, proposing that they be reviewed by WP5A to determine if they are still relevant, or if they should be suppressed. However, considering the priority to finish the draft CMP text at this meeting it was agreed to carry forward [Doc. 5A/541](https://www.itu.int/md/R19-WP5A-C-0541/en) to the next meeting of WP5A.

The work program for the WP5A meeting was adopted as presented in [Doc. 5A/ADM/70(Rev.1)](http://www.itu.int/md/R19-WP5A-ADM-0070/en), with additions as shown in [Table 1](#t1) below. The initial schedule was adopted as per [Doc. 5A/ADM/71](http://www.itu.int/md/R19-WP5A-ADM-0071/en) and as the meeting progressed adjustments to the schedule were made, with the final list in [Doc. 5A/ADM/71(Rev.1)](http://www.itu.int/md/R19-WP5A-ADM-0071/en).

At the opening plenary of WP5A the SG5 Counsellor described the working methods for offline email discussions during WP5A/5C meetings. For details of these offline email activities refer to the [WP5A SharePoint folder](https://extranet.itu.int/rsg-meetings/sg5/wp5a/Share/Forms/Column%20view.aspx?RootFolder=%2Frsg%2Dmeetings%2Fsg5%2Fwp5a%2FShare%2FOffline%20Email%20Discussions&FolderCTID=0x012000FB880722B4622243913B1114C70648D5&View=%7B627C3C95%2DCC37%2D49E0%2D8D8A%2D33AC93C6F497%7D).

Two contributions were considered at the opening plenary, [Doc. 5A/499](https://www.itu.int/md/R19-WP5A-C-0499/en) (URSI) provides information of some URSI Resolutions and [Doc. 5A/507R1](https://www.itu.int/md/R19-WP5A-C-0507/en) (Iran) provides guidance regarding the status of the secondary allocations in relation with future WRC-23 agenda items.

The Chairman asked the meeting participants to review the list of contacts that appears in section 4 of [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0541!N01!MSW-E) to [Doc. 5A/541](https://www.itu.int/md/R19-WP5A-C-0541/en) and inform him of any necessary changes (the updated list appears in section 4 of [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N01!MSW-E) to [Doc. 5A/597](http://www.itu.int/md/R19-WP5A-C-0597/en) and updates between meetings are maintained by the BR and the Chairman of WP5A). The Chairman indicated this list showing the contacts by topics is used for all liaison statements to external organizations on those topics and the e-mail distribution lists are generated automatically from it.

The Chairman also pointed out the guidelines for the preparation of WP5A texts, including the draft CPM text as described in Section 3 of Annex 1, the [Format of ITU-R Recommendations](http://www.itu.int/dms_pub/itu-r/oth/0a/0E/R0A0E0000970001MSWE.docx) and the [ITU English Style Guide](http://www.itu.int/SG-CP/docs/styleguide.doc) in section 2.3 of Annex 1, and guidance on vocabulary work in Section 2.1 §12 of Annex 1.

At a joint meeting with WP5C the draft CPM text for agenda item 9.1 topic c), [Annex 8](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N08%21MSW-E.docx) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en), was agreed for submission to the Chapter Rapporteur and further consideration at the CPM Management Team meeting in November. The report of activities undertaken in support of agenda item 9.1 topic c) was noted, [Annex 9](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N09%21MSW-E.docx) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en).

At the closing plenary of WP5A, during the approval of the draft reply liaison statement to WP7B on activities relating to WRC-23 agenda item 1.13 (Doc. 5A/TEMP/211R1) that contains a reference to *recognizing* *e)* of Resolution **661 (WRC-19)**, which states “*that upgrading to primary status the allocation of the frequency band 14.8-15.35 GHz for the SRS should not impose constraints on existing systems of primary services in the frequency band 14.8‑15.35 GHz*”, concerns were expressed on the use of the term “constraints” and similar ones such as “due constraints” and “undue constraints”. Moreover, concerns were expressed about the use of the term “existing systems”, which exclude the future development of systems in the band that is allocated; every effort should be made to avoid the use of these terms in the future.

At the opening Plenary of WP5A two Liaison Rapporteur reports were presented, on [Disaster Relief](http://www.itu.int/ITU-R/index.asp?category=information&link=emergency&lang=en) by Amy Sanders, USA, in [Doc. 5A/585](https://www.itu.int/md/R19-WP5A-C-0585/en), and on certain countries in Region 2 by Jonathan Siverling, USA, in [Doc. 5A/[587](https://www.itu.int/md/R19-WP5A-C-0587/en)](https://www.itu.int/md/R19-WP5A-C-0587/en); at the closing plenary a report on certain countries in Region 1 by Gabrielle Owen, The Netherlands, in [Doc. 5A/594](https://www.itu.int/md/R19-WP5A-C-0594/en), and a report on certain countries in Region 3 by Hitoshi Yoshino, Japan, in [Doc. 5A/595](https://www.itu.int/md/R19-WP5A-C-0595/en). The chairman thanked the liaison rapporteurs for the valuable information presented in these reports and he asked that, due to lack of time, any questions be addressed by email directly to the respective liaison rapporteurs.

# 2 Objectives and work programme for the meeting

The objectives for the meeting were adopted as set forth in the Chairman’s Report of the twenty-sixth meeting of WP5A (section 4 of [Doc. 5A/491](http://www.itu.int/md/R19-WP5A-C-0491/en)) noting that need to consider also the proposals in the input contributions for the twenty-seventh meeting, in particular those related to the WRC-23 agenda items and topics under the responsibility of WP5A. The Chairman emphasized that the draft CPM text for the topics under WP5A responsibility must be completed at this 27th meeting of WP5A. WRC-23 topic 9.1 c) was addressed in the Ad Hoc WG5A/5C (cf. [section 3.10](#s310)). Actions regarding future updates of documents that have a joint WG5A/5C responsibility will be considered on a case-by-case basis depending on the input contributions and the nature of the proposed update.

The work was carried out within five Working Groups and the ad hoc Working Group 5A/5C. The responsibilities for input contributions were assigned based on [Doc. 5A/ADM/70(Rev.1)](http://www.itu.int/md/R19-WP5A-ADM-0070/en) as shown in [Table 1](#t1), including the organization of the work for the meeting (the documents in the rows “Reports” and “General” are assigned to all the Working Groups).  This table shows the assignments of contributions to a single working group to ensure that all contributions are considered; nevertheless, any contribution to the meeting can also be considered by the other working groups as needed.

TABLE 1

Assignment of input contributions and organization of the work for the meeting

The documents carried forward to this meeting are highlighted in green (25 documents).
New documents: 491-595, except 503 (105 documents)

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| **Working Party 5A (Chairman:** **José Costa****, Canada)** |
| **Reports** | [491](https://www.itu.int/md/R19-WP5A-C-0491/en) (Chairman, WP5A); [514](https://www.itu.int/md/R19-WP5A-C-0514/en) (Chairman, WP5A); [585](https://www.itu.int/md/R19-WP5A-C-0585/en) (Disaster Relief L.R.); [587](https://www.itu.int/md/R19-WP5A-C-0587/en) (L.R. #2)  |
| **General** | [499](https://www.itu.int/md/R19-WP5A-C-0499/en) (URSI); [507R1](https://www.itu.int/md/R19-WP5A-C-0507/en) (Iran); [541](https://www.itu.int/md/R19-WP5A-C-0541/en) (Canada); [593](https://www.itu.int/md/R19-WP5A-C-0593/en) (list of documents); [594](https://www.itu.int/md/R19-WP5A-C-0594/en) (L.R. #1); [595](https://www.itu.int/md/R19-WP5A-C-0595/en) (L.R. #3) |

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| **Working Group 1: Amateur Services (Chairman:** **Dale Hughes****, Australia)** |
| **WRC-23 AI 9.1 b)** [**Res. 774**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0023PDFE.pdf) | [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 6](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N06%21MSW-E.docx) (WP5A); [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 7](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N07%21MSW-E.docx) (WP5A); [522](https://www.itu.int/md/R19-WP5A-C-0522/en) (France, Germany); [538](https://www.itu.int/md/R19-WP5A-C-0538/en) (Canada); [543](https://www.itu.int/md/R19-WP5A-C-0543/en) (Russian Federation); [544](https://www.itu.int/md/R19-WP5A-C-0544/en) (France); [556](https://www.itu.int/md/R19-WP5A-C-0556/en) (WP4C); [557](https://www.itu.int/md/R19-WP5A-C-0557/en) (IARU)*Characteristics:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 10](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N10%21MSW-E.docx) (WP5A); [539](https://www.itu.int/md/R19-WP5A-C-0539/en) (Canada) *Proposed new Rec. M.[AS GUIDANCE]:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 11](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N11%21MSW-E.docx) (WP5A); [545](https://www.itu.int/md/R19-WP5A-C-0545/en) (France); [577](https://www.itu.int/md/R19-WP5A-C-0577/en) (Germany)*Amateur satellite:* [588](https://www.itu.int/md/R19-WP5A-C-0588/en) (WP4A) |
| **Sharing studies** | *Rec. ITU-R M.1732:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 12](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N12%21MSW-E.docx) (WP5A); [586](https://www.itu.int/md/R19-WP5A-C-0586/en) (IARU) |

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| **Working Group 2: Systems and standards (Chairman:** **Lang Baozhen****, China)** |
| **Railways****(incl.** [**Res. 240 (WRC-19)**](https://www.itu.int/oth/R0A060000A0/en)**)** | *Rep. ITU-R M.2442:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 13](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N13%21MSW-E.docx) (WP5A); [537](https://www.itu.int/md/R19-WP5A-C-0537/en) (Korea)*Rec. ITU-R RSTT Frequencies:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 14](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N14%21MSW-E.docx) (WP5A); [513](https://www.itu.int/md/R19-WP5A-C-0513/en) (APT); [551](https://www.itu.int/md/R19-WP5A-C-0551/en) (China) |
| **Broadband Wireless Access** | *Rec. ITU-R M.2134:* [221](https://www.itu.int/md/R19-WP5A-C-0221/en) [Annex 11](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0221%21N11%21MSW-E.docx) (WP5A)*Rec. ITU-R M.1801:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 16](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N16%21MSW-E.docx) (WP5A); [540](https://www.itu.int/md/R19-WP5A-C-0540/en) (Canada); [547](https://www.itu.int/md/R19-WP5A-C-0547/en) (IEEE); [576](https://www.itu.int/md/R19-WP5A-C-0576/en) (XGP Forum)*Rec. ITU-R M.1450:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 15](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N15%21MSW-E.docx) (WP5A); [526](https://www.itu.int/md/R19-WP5A-C-0526/en) (ETSI); [535](https://www.itu.int/md/R19-WP5A-C-0535/en) (Korea); [546](https://www.itu.int/md/R19-WP5A-C-0546/en) (IEEE); [548](https://www.itu.int/md/R19-WP5A-C-0548/en) (China); [568](https://www.itu.int/md/R19-WP5A-C-0568/en) (Japan)  |
| **Land mobile systems** | *Utilities:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 17](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N17%21MSW-E.docx) (WP5A); [501](https://www.itu.int/md/R19-WP5A-C-0501/en) (ITU-T SG15); [509](https://www.itu.int/md/R19-WP5A-C-0509/en) (WP5D); [534](https://www.itu.int/md/R19-WP5A-C-0534/en) (Ireland)*Testbeds:* [497R1](https://www.itu.int/md/R19-WP5A-C-0497/en) (ITU-T SG11); [518](https://www.itu.int/md/R19-WP5A-C-0518/en) (FG-TBFXG)*Artificial Intelligence:* [498](https://www.itu.int/md/R19-WP5A-C-0498/en) (ITU-T SG13)*PSME/Res.59:* [485](https://www.itu.int/md/R19-WP5A-C-0485/en) (WP6A); [495](https://www.itu.int/md/R19-WP5A-C-0495/en) (WP5C); [510](https://www.itu.int/md/R19-WP5A-C-0510/en) (WP5D); [512](https://www.itu.int/md/R19-WP5A-C-0512/en) (WP6A); [581](https://www.itu.int/md/R19-WP5A-C-0581/en) (Germany) |
| **Air to Ground**  | *Update of Rep. ITU-R M.2282:* [359](https://www.itu.int/md/R19-WP5A-C-0359/en) [Annex 17](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0359%21N17%21MSW-E.docx) (WP5A); [580](https://www.itu.int/md/R19-WP5A-C-0580/en) (Germany) |
| **RLAN characteristics** | *Support WG4 with characteristics for sharing & coexistence studies* |
| **ANTS, HNTS** | [500](https://www.itu.int/md/R19-WP5A-C-0500/en) (ITU-T SG9); [502](https://www.itu.int/md/R19-WP5A-C-0502/en) (ITU-T SG15); [504](https://www.itu.int/md/R19-WP5A-C-0504/en) (ITU-T SG9); [505](https://www.itu.int/md/R19-WP5A-C-0505/en) (ITU-T SG15) |

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| **Working Group 3: PPDR (Chairman:** **Amy Sanders****, USA)** |
| **Update of ITU-R Reports** | *M.2377:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 18](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N18%21MSW-E.docx) (WP5A); [559](https://www.itu.int/md/R19-WP5A-C-0559/en) (IAFI) |
| **Updates of ITU-R Resolutions** | *Res. 55:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 19](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N19%21MSW-E.docx) (WP5A); [558](https://www.itu.int/md/R19-WP5A-C-0558/en) (IAFI) |
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| **Working Group 4: Interference and sharing (Chairman:** **Michael Kraemer****, Germany)** |
| **Sharing studies (general)** | *General:* [492](https://www.itu.int/md/R19-WP5A-C-0492/en) (IMO) / *Antennas:* [494](https://www.itu.int/md/R19-WP5A-C-0494/en) (WP5C)*Rep. M.2116:* [359](https://www.itu.int/md/R19-WP5A-C-0359/en) [Annex 19](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0359%21N19%21MSW-E.docx) (WP5A); [496](https://www.itu.int/md/R19-WP5A-C-0496/en) (WP5C)*Range 252-296 GHz:* [487](https://www.itu.int/md/R19-WP5A-C-0487/en) (WP5C); [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 21](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N21%21MSW-E.docx) (WP5A); [573](https://www.itu.int/md/R19-WP5A-C-0573/en) (Japan)*Beam WPT:* [371](https://www.itu.int/md/R19-WP5A-C-0371/en) (WP1A); [524](https://www.itu.int/md/R19-WP5A-C-0524/en) (WP7D) / *Non-Beam WPT:* [483](https://www.itu.int/md/R19-WP5A-C-0483/en) (WP1A); [532](https://www.itu.int/md/R19-WP5A-C-0532/en) (WP7A) |
| **Vocabulary** | [515](https://www.itu.int/md/R19-WP5A-C-0515/en) (ATDI); [523](https://www.itu.int/md/R19-WP5A-C-0523/en) (WP7D) |
| **RLAN sharing (incl.** [**Res. 229**](https://www.itu.int/oth/R0A0600009D/en)**)** | [529](https://www.itu.int/md/R19-WP5A-C-0529/en) (WP7C); [533](https://www.itu.int/md/R19-WP5A-C-0533/en) (WP7A); [555](https://www.itu.int/md/R19-WP5A-C-0555/en) (France) |
| **AI 1.2: IMT** [**Res. 245**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0002PDFE.pdf) |  |
| **AI 1.3: 3.6-3.8 R1** [**Res. 246**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0003PDFE.pdf) | [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 4](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N04%21MSW-E.docx) (WP5A); [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 5](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N05%21MSW-E.docx) (WP5A); [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 20](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N20%21MSW-E.docx) (WP5A); [553](https://www.itu.int/md/R19-WP5A-C-0553/en) (China); [554](https://www.itu.int/md/R19-WP5A-C-0554/en) (China); [560](https://www.itu.int/md/R19-WP5A-C-0560/en) (GSMA); [561](https://www.itu.int/md/R19-WP5A-C-0561/en) (UK); [562](https://www.itu.int/md/R19-WP5A-C-0562/en) (Ericsson); [564](https://www.itu.int/md/R19-WP5A-C-0564/en) (Nigeria, South Africa, Zimbabwe); [565](https://www.itu.int/md/R19-WP5A-C-0565/en) (Nigeria, South Africa, Zimbabwe); [566](https://www.itu.int/md/R19-WP5A-C-0566/en) (GSMA); [574](https://www.itu.int/md/R19-WP5A-C-0574/en) (Nokia); [575](https://www.itu.int/md/R19-WP5A-C-0575/en) (Egypt, UAE); [583](https://www.itu.int/md/R19-WP5A-C-0583/en) (Burkina Faso *et al.*); [584](https://www.itu.int/md/R19-WP5A-C-0584/en) (Burkina Faso *et al.*) |
| **AI 1.4: HIBS** [**Res. 247**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0004PDFE.pdf) | [506](https://www.itu.int/md/R19-WP5A-C-0506/en) (CG3J-3K-3M-14); [508](https://www.itu.int/md/R19-WP5A-C-0508/en) (WP5D); [511](https://www.itu.int/md/R19-WP5A-C-0511/en) (WP6A) |
| **AI 1.5: 470-960 R1** [**Res. 235**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000C0036PDFE.pdf) |  |
| **AI 1.8: Res.155&5.484B** [**Res. 171**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0027PDFE.pdf) |  |
| **AI 1.9 Appendix 27** [**Res. 429**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0009PDFE.pdf) |  |
| **AI 1.10: AMS** [**Res. 430**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0010PDFE.pdf) |  |
| **AI 1.12: EESS @45** [**Res. 656**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0012PDFE.pdf) | [530R1](https://www.itu.int/md/R19-WP5A-C-0530/en) (WP7C) |
| **AI 1.13: SRS** [**Res. 661**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0013PDFE.pdf) | [517](https://www.itu.int/md/R19-WP5A-C-0517/en) (WP5B); [525](https://www.itu.int/md/R19-WP5A-C-0525/en) (WP7D); [563](https://www.itu.int/md/R19-WP5A-C-0563/en) (France) |
| **AI 1.14: EESS @231** [**Res.662**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0014PDFE.pdf) | [528](https://www.itu.int/md/R19-WP5A-C-0528/en) (WP7C) |
| **AI 1.15: FSS** [**Res. 172**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0015PDFE.pdf) | [590](https://www.itu.int/md/R19-WP5A-C-0590/en) (WP4A) |
| **AI 1.16: FSS ESIM** [**Res. 173**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0016PDFE.pdf) | [591](https://www.itu.int/md/R19-WP5A-C-0591/en) (WP4A) |
| **AI 1.17: ISL** [**Res. 773**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0017PDFE.pdf) | [592](https://www.itu.int/md/R19-WP5A-C-0592/en) (WP4A) |
| **AI 1.18: MSS** [**Res. 248**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0018PDFE.pdf) |  |
| **AI 1.19: FSS @17** [**Res. 174**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0019PDFE.pdf) | [589](https://www.itu.int/md/R19-WP5A-C-0589/en) (WP4A) |
| **AI 9.1 a): SWS** [**Res. 657**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0022PDFE.pdf) | [527](https://www.itu.int/md/R19-WP5A-C-0527/en) (WP7C) |
| **AI 9.1 d): EESS@36** [**Doc.573**](https://www.itu.int/dms_pub/itu-r/md/16/wrc19/c/R16-WRC19-C-0573%21%21MSW-E.docx) | [531](https://www.itu.int/md/R19-WP5A-C-0531/en) (WP7C) |
| [**Res. 731**](https://www.itu.int/oth/R0A060000A1/en)**: >71 GHz** | [343](https://www.itu.int/md/R19-WP5A-C-0343/en) (WP7C); [388](https://www.itu.int/md/R19-WP5A-C-0388/en) (WPs 3J, 3K and 3M); [406](https://www.itu.int/md/R19-WP5A-C-0406/en) (WP7D); [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 22](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N22%21MSW-E.docx) (WP5A); [493](https://www.itu.int/md/R19-WP5A-C-0493/en) (WP5C); [542](https://www.itu.int/md/R19-WP5A-C-0542/en) (Russian Federation) |

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| **Working Group 5: New technologies (Chairman:** **Hitoshi Yoshino****, Japan)** |
| **ITS****(incl.** [**Rec. 208 (WRC-19)**](https://www.itu.int/oth/R0A060000A3/en)**)** | *CAV (*[*Question ITU-R 261/5*](https://www.itu.int/pub/R-QUE-SG05.261)*):* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 23](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N23%21MSW-E.docx) (WP5A); [519](https://www.itu.int/md/R19-WP5A-C-0519/en) (USA); [536](https://www.itu.int/md/R19-WP5A-C-0536/en) (Korea); [549](https://www.itu.int/md/R19-WP5A-C-0549/en) (China); [550](https://www.itu.int/md/R19-WP5A-C-0550/en) (China); [552](https://www.itu.int/md/R19-WP5A-C-0552/en) (China); [567](https://www.itu.int/md/R19-WP5A-C-0567/en) (Qualcomm); [569](https://www.itu.int/md/R19-WP5A-C-0569/en) (Japan); [570](https://www.itu.int/md/R19-WP5A-C-0570/en) (Japan); [578](https://www.itu.int/md/R19-WP5A-C-0578/en) (Germany); [579](https://www.itu.int/md/R19-WP5A-C-0579/en) (Germany)*Rec. ITU-R M.2121:* [359](https://www.itu.int/md/R19-WP5A-C-0359/en) [Annex 25](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0359%21N25%21MSW-E.docx) (WP5A)*Rep. ITU-R M.2444:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 24](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N24%21MSW-E.docx) (WP5A)*Rec. ITU-R M.1307:* [571](https://www.itu.int/md/R19-WP5A-C-0571/en) (Japan) |
| [**Q.256/5**](https://www.itu.int/pub/R-QUE-SG05.256)**: >275 GHz** | *Rep. ITU-R M.2417:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 26](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N26%21MSW-E.docx) (WP5A); [572](https://www.itu.int/md/R19-WP5A-C-0572/en) (Japan)*Spectrum needs:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 27](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N27%21MSW-E.docx) (WP5A) |
| **M2M** | *Rep. ITU-R M.2479:* [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 25](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N25%21MSW-E.docx) (WP5A) |

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| **Ad Hoc Working Group 5A/5C: Topic 9.1 c) (Chairman:** **Christine Di Lapi****, USA)** |
| **WRC-23 AI 9.1 c)** [**Res. 175**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0024PDFE.pdf)**Draft CPM text** | [418](https://www.itu.int/md/R19-WP5A-C-0418/en) (UK/CEPT PTA); [472](https://www.itu.int/md/R19-WP5A-C-0472/en) (Russian Federation); [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 8](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N08%21MSW-E.docx) (WP5A); [516](https://www.itu.int/md/R19-WP5A-C-0516/en) (UK);[520](https://www.itu.int/md/R19-WP5A-C-0520/en) (USA); [582](https://www.itu.int/md/R19-WP5A-C-0582/en) (UAE) |
| **Work plan** | [431](https://www.itu.int/md/R19-WP5A-C-0431/en) Appendix III (USA); [273](https://www.itu.int/md/R19-WP5A-C-0273/en) (IAFI); [321](https://www.itu.int/md/R19-WP5A-C-0321/en) [Att.4](https://www.itu.int/dms_ties/itu-r/md/19/wp5a/c/R19-WP5A-C-0321%21P04%21MSW-E.docx) (UK/CEPT PT A); [491](https://www.itu.int/md/R19-WP5A-C-0491/en) [Annex 9](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0491%21N09%21MSW-E.docx) (WP5A) |
| **Scope of FWB term** | [418](https://www.itu.int/md/R19-WP5A-C-0418/en) (UK/CEPT PTA); [422](https://www.itu.int/md/R19-WP5A-C-0422/en) (CG Chairman); [431](https://www.itu.int/md/R19-WP5A-C-0431/en) (USA); [445](https://www.itu.int/md/R19-WP5A-C-0445/en) (IAFI); [458](https://www.itu.int/md/R19-WP5A-C-0458/en) (South Africa); [469](https://www.itu.int/md/R19-WP5A-C-0469/en) (Egypt); [472](https://www.itu.int/md/R19-WP5A-C-0472/en) (Russian Federation); [478](https://www.itu.int/md/R19-WP5A-C-0478/en) (Saudi Arabia, UAE) |
| **“IMT Systems” from** [**Res. 175**](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0024PDFE.pdf) | [418](https://www.itu.int/md/R19-WP5A-C-0418/en) (UK/CEPT PTA); [445](https://www.itu.int/md/R19-WP5A-C-0445/en) (IAFI); [458](https://www.itu.int/md/R19-WP5A-C-0458/en) (South Africa); [472](https://www.itu.int/md/R19-WP5A-C-0472/en) (Russian Federation) |
| **Rec. ITU-R F.1401-1** | [321](https://www.itu.int/md/R19-WP5A-C-0321/en) [Att.2](https://www.itu.int/dms_ties/itu-r/md/19/wp5a/c/R19-WP5A-C-0321%21P02%21MSW-E.docx) (UK/CEPT PT A); [431](https://www.itu.int/md/R19-WP5A-C-0431/en) Appendix II, Att. 2 (USA); [521](https://www.itu.int/md/R19-WP5A-C-0521/en) (USA) |
| **Rec. ITU-R F.1490-1** | [431](https://www.itu.int/md/R19-WP5A-C-0431/en) Appendix II, Att. 1 (USA); [521](https://www.itu.int/md/R19-WP5A-C-0521/en) (USA) |
| **Rec. ITU-R F.1763-1** | [307](https://www.itu.int/md/R19-WP5A-C-0307/en) (China); [431](https://www.itu.int/md/R19-WP5A-C-0431/en) Appendix II, Att. 3 (USA); [521](https://www.itu.int/md/R19-WP5A-C-0521/en) (USA) |
| **Question ITU-R 215-4/5** | [431](https://www.itu.int/md/R19-WP5A-C-0431/en) Appendix I (USA); [521](https://www.itu.int/md/R19-WP5A-C-0521/en) (USA) |
| **New Report / Rec.** | [221](https://www.itu.int/md/R19-WP5A-C-0221/en) [Annex 18](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0221%21N18%21MSW-E.docx) (WP5A); [271](https://www.itu.int/md/R19-WP5A-C-0271/en) (USA); [321](https://www.itu.int/md/R19-WP5A-C-0321/en) [Att.3](https://www.itu.int/dms_ties/itu-r/md/19/wp5a/c/R19-WP5A-C-0321%21P03%21MSW-E.docx) (UK/CEPT PTA); [329](https://www.itu.int/md/R19-WP5A-C-0329/en) (Egypt); [336](https://www.itu.int/md/R19-WP5A-C-0336/en) (UAE) |
| **Working document/Misc.** | [418](https://www.itu.int/md/R19-WP5A-C-0418/en) (UK/CEPT PT A); [422](https://www.itu.int/md/R19-WP5A-C-0422/en) (CG Chairman); [431](https://www.itu.int/md/R19-WP5A-C-0431/en) (USA); [445](https://www.itu.int/md/R19-WP5A-C-0445/en) (IAFI); [458](https://www.itu.int/md/R19-WP5A-C-0458/en) (South Africa); [469](https://www.itu.int/md/R19-WP5A-C-0469/en) (Egypt); [472](https://www.itu.int/md/R19-WP5A-C-0472/en) (Russian Federation); [478](https://www.itu.int/md/R19-WP5A-C-0478/en) (Saudi Arabia, UAE); [221](https://www.itu.int/md/R19-WP5A-C-0221/en) [Annex 18](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0221%21N18%21MSW-E.docx) (WP5A); [271](https://www.itu.int/md/R19-WP5A-C-0271/en) (USA); [321](https://www.itu.int/md/R19-WP5A-C-0321/en) [Att.3](https://www.itu.int/dms_ties/itu-r/md/19/wp5a/c/R19-WP5A-C-0321%21P03%21MSW-E.docx) (UK/CEPT PTA); [329](https://www.itu.int/md/R19-WP5A-C-0329/en) (Egypt); [336](https://www.itu.int/md/R19-WP5A-C-0336/en) (UAE) |

The Working Groups developed preliminary draft revised/new Recommendations, Reports, Questions, and liaison statements, and progress reports on the work. The detailed reports from the Working Groups are contained in [Annex 3](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N03!MSW-E). The texts proposed by these Working Groups in TEMP documents ([Annex 26](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N26!MSW-E)) were considered by WP5A and those agreed are either included in annexes to this Report for further work to be considered at future meetings of WP5A or were approved by WP5A as liaison statements to other groups or for submission to Study Group 5 ([Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N02!MSW-E)).

# 3 Executive summary of the results of the meeting

## 3.1 Summary of documents approved by WP5A

The list of texts that are the responsibility of Working Party 5A (WP5A) has been updated in line with Doc. [5/1(Rev.1)](http://www.itu.int/md/R19-SG05-C-0001/en), including the assignment of responsibilities to the working groups of WP5A and identification of topics for the Recommendations and Reports ([Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N01!MSW-E)).

At a previous meeting, WP5A already decided to implement factual editorial updates of the guides to the use of ITU-R texts related to the radiocommunication services under the responsibility of WP5A between the meetings of WP5A (i.e., updates of references to Recommendations, Reports and Handbooks as they are approved), while amendments of substance will be considered for approval at the WP5A meetings.

The consolidation of all the texts approved by WP5A at its 27th meeting, including 13 liaison statements and 1 proposal to Study Group 5, appears in [Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N02!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en).

## 3.2 Summary of proposals and documents submitted by Working Party 5A to Study Group 5

WP5A approved a draft revision of Report ITU-R M.2417-0 – “Technical and operational characteristics of land- mobile service applications in the frequency range 275-450 GHz” for submission to SG5 – [Doc. 5/80](https://www.itu.int/md/R19-SG05-C-0080/en).

## 3.3 Amateur and amateur-satellite services

Completed the work on the draft CPM text for WRC-23 agenda item 9.1 topic b) ([Annex 6](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N06%21MSW-E.docx)) and the work plan was converted to a report of the activities undertaken ([Annex 7](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N07%21MSW-E.docx)). Sent a liaison statement to WP4C covering work on topic 9.1 b) and a liaison statement to WP7C covering aspects of WRC-23 agenda item 1.12. Developed further a preliminary draft new Report ITU-R M.[AMATEUR.CHARACTERISTICS] ([Annex 10](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N10!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)), a working document towards a preliminary draft new Recommendation M.[AS Guidance] ([Annex 11](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N11!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)), and a preliminary draft revision of Recommendation ITU-R M.1732-2 – “Characteristics of systems operating in the amateur and amateur-satellite services for use in sharing studies” ([Annex 12](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N12!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

## 3.4 Systems and standards

*RSTT:* continued the development a working document towards a preliminary draft revision of Report ITU-R M.2442-0 – “Current and future usage of railway radiocommunication systems between train and trackside” ([Annex 13](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N13%21MSW-E.docx) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)) and a working document towards a preliminary draft new Recommendation ITU-R M.[RSTT\_FRQ] – “Spectrum Harmonization for Railway Radiocommunication Systems between Train and Trackside (RSTT)” ([Annex 14](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N14!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

*RLAN & BWA standards:* continued the development of a working document towards a preliminary draft revision of Recommendation ITU-R M.1450-5 – “Characteristics of broadband radio local area networks” ([Annex 15](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N15!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)) and a working document towards a preliminary draft revision of Recommendation ITU-R M.1801-2 – “Radio interface standards for broadband wireless access systems, including mobile and nomadic applications, in the mobile service operating below 6 GHz” ([Annex 16](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N16!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)). Initiated the development of working document towards a preliminary draft new Report ITU-R M.[bb-WAS.freq] – “Frequencies used by systems based on radio interface standards for broadband wireless access*”* as a companion ITU-R Report to Recommendation ITU-R M.1801 ([Annex 17](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N17!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

*Utilities:* continued the development of a working document towards a preliminary draft new Report ITU-R M.[UTILLITIES] – “Utility Radiocommunication Systems” ([Annex 18](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N18!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)). A reply liaison statement was sent to inform WP5D on the progress.

*Status and trends regarding regional and global usage of audio applications of PMSE in the land mobile service:* a working document towards a preliminary draft new Report ITU-R M.[AUDIO-PMSE\_LMS] was initiated ([Annex 19](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N19!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)) and sent a reply liaison statement to WP5C.

*Systems for public mobile communications with aircraft:* one contribution was received proposing to elevate the working document to PDNR; however, no consensus was reached. Members are encouraged to input their update information in the future WP5A meetings to advance the draft revision of Report ITU-R M.2282, especially for Region 2 and Region 3. The working document towards a preliminary draft revision of Report ITU-R M.2282-0 – “Systems for public mobile communications with aircraft” ([Annex 17](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0359!N17!MSW-E) to [Doc. 5A/359](https://www.itu.int/md/R19-WP5A-C-0359/en)) is carried forward.

*Protection of land mobile systems:* there were no contributions on the proposed draft revision of Rec. ITU-R M.2134 “Receiver characteristics and protection criteria for systems in the mobile service in the frequency range 27.5-29.5 GHz for use in sharing and compatibility studies” and the working document in [Annex 11](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0221!N11!MSW-E) to [Doc. 5A/221](http://www.itu.int/md/R19-WP5A-C-0221/en) is carried forward. It continues to be an issue the possibility of changing the deterministic interference protection criteria methodology currently employed by the land mobile service in this band to a statistical methodology specified as a percentage of time since it could impact other terrestrial radiocommunication services that use the same deterministic approach.

## 3.5 Public protection and disaster relief

The meeting advanced the work on the draft revisions of Report ITU-R 2377-1 ([Annex 20](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N20!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)) and Resolution ITU-R 55-3 ([Annex 21](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N21!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)). Contributions are sought on these draft revisions as well as on the possible development of a handbook with best practices or guidelines for emergency communications.

## 3.6 Interference and sharing

Completed the draft CPM text on WRC-23 agenda item 1.3 ([Annex 4](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N04!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)) and progressed the working document towards a draft ITU-R Report for sharing and compatibility studies in compliance with Resolution **246 (WRC-19)** ([Annex 22](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N22!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)); updated the working document towards a PDN Report ITU-R M.[252-296 GHZ.LMS.FS.COEXIST] and elevated it to a PDN Report ([Annex 23](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N23!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)); developed a reply liaison statement to WP7C to inform them about the ongoing work to develop WAS/RLAN parameters for the 6 GHz range; updated the working document towards a preliminary draft new Report ITU-R M.[LMS.CONDITIONS>275GHz] ([Annex 24](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N24!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)) and developed reply liaison statements to WPs 4A, 7B and 7C on WRC-23 agenda items 1.12, 1.13, 1.14, 1.15, 1.16, 1.17 and 1.19.

## 3.7 New technologies

Completed the draft revision of Report ITU-R M.2417-0 – “Technical and operational characteristics of land-mobile service applications in the frequency range 275-450 GHz” ([Doc. 5/80](https://www.itu.int/md/R19-SG05-C-0080/en)).

Continued to develop a working document towards a Preliminary Draft New Report ITU‑R M.[CAV] ] “Connected Automated Vehicles” ([Annex 25](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N25!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

The work on other deliverables will continue at the next meeting and members are encouraged to provide contributions to assist in progressing the work (see section 5 – 5)).

## 3.8 Land Mobile Handbook

No new activity.

## 3.9 Vocabulary

The vocabulary for RLANs on DFS and TCP (elements for a future update of Rec. ITU-R M.1450), which was carried forward in [Annex 17](https://www.itu.int/dms_pub/itu-r/md/15/wp5a/c/R15-WP5A-C-0844%21N17%21MSW-E.docx) to [Doc. 5A/844](https://www.itu.int/md/R15-WP5A-C-0844/en) (elements for a future update of
 Rec. ITU-R M.1450), has been included in the working document in [Annex 15](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N15!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en).

## 3.10 Joint activity of WP5A and WP5C on WRC-23 topic 9.1 c)

Considered four input contributions regarding proposals for draft CPM text for this topic, which included one input submitted at the 26th meeting of WP5A. The draft CPM text was presented at a joint plenary session of Working Parties 5A and 5C, at which it was approved to be sent to the CPM-23 Chapter 5 Rapporteur. One input contribution was received that proposed revisions to some existing F-Series Recommendations, given that there was no time to consider it, it is carried forward to the 28th meeting of WP5A, along with inputs from prior meetings that still have not been considered.

# 4 Summary of WRC-23 preparations

WP5A has responsibility for one WRC-23 agenda item and two topics under agenda item 9.1, as summarized in the following table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Agenda item / Topic | Topic | Resolution | Final Draft CPM text | Workplan/ Report of activities |
| 1.3 | Primary allocation of the band 3 600-3 800 MHz to the mobile service within Region 1 | [**246** (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0003PDFE.pdf) | [Annex 4](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N04!MSW-E)to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en) | [Annex 5](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N05!MSW-E)to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en) |
| /9.1 b) | Amateur service and amateur-satellite service allocations in 1 240-1 300 MHz | [**774** (WRC‑19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0023PDFE.pdf) | [Annex 6](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N06!MSW-E)to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en) | [Annex 7](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N07!MSW-E)to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en) |
| /9.1 c) | IMT for fixed wireless broadband in the frequency bands allocated to the fixed services on primary basis | [**175** (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0024PDFE.pdf) | [Annex 8](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N08!MSW-E)to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en) | [Annex 9](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N09!MSW-E)to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en) |

These annex numbers of the WP5A Chairman’s Report have been maintained from meeting to meeting until this final version. The annexes with the work plans have been converted to reports of the work undertaken at each meeting as the work was progressed.

Refer to [section 3](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N01%21MSW-E.docx#s3) of [Annex 1](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N01%21MSW-E.docx) for further information on the WRC-23 preparations, in particular the principles in [section 3.1](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N01%21MSW-E.docx#s31) of [Annex 1](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N01%21MSW-E.docx) to [Doc. 5A/491](https://www.itu.int/md/R19-WP5A-C-0597/en) or in the Annex to [CVC-16/2](https://www.itu.int/md/R19-CVC-C-0002/en).

WP5A had previously invited the membership to provide characteristics and protection criteria where applicable for radiocommunication systems operating and intended to operate in the future in the frequency band subject to WRC-23 agenda items.

# 5 Objectives for the twenty-eighth meeting of WP5A

The principal objective for the 28th meeting of Working Party 5A is to assess the work that may remain to be conducted in support of the preparations for WRC-23, as per the results of CPM23-1, and to continue the work on the study questions assigned to WP5A.

Based on the reports from the Working Groups of WP5A (cf. [Annex 3](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N03!MSW-E)), the following overall objectives are tentatively set for the 28th meeting of WP5A:

**1) Amateur and amateur-satellite services**

– Based on input contributions continue developing draft Report and Recommendation in support of WRC-23 agenda item 9.1 b).

– Complete the draft revision of Recommendation ITU-R M.1732 “Characteristics of systems operating in the amateur and amateur-satellite services for use in sharing studies” ([Annex 12](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N12!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Respond to liaison notes from other groups and update other groups as appropriate, including the consideration of [Doc. 5A/588](https://www.itu.int/md/R19-WP5A-C-0588/en) (WP4A) that is carried forward to the next meeting.

– Deal with any other work relevant to the amateur and amateur-satellite services that is brought to the meeting.

**2) Systems and standards**

– Development of the working document towards a preliminary draft new Recommendation ITU-R M.[RSTT\_FRQ] – “Spectrum Harmonization for Railway Radiocommunication Systems between Train and Trackside (RSTT)” ([Annex 14](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N14!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Development of the working document towards a preliminary draft revision of Report ITU-R M.2442-0 – “Current and future usage of railway radiocommunication systems between train and trackside” ([Annex 13](https://www.itu.int/dms_pub/itu-r/md/19/wp5a/c/R19-WP5A-C-0597%21N13%21MSW-E.docx) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Development of the working document towards a preliminary draft revision of Report ITU‑R M.2282-0 – “Systems for public mobile communications with aircraft”
([Annex 17](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0359!N17!MSW-E) to [Doc. 5A/359](https://www.itu.int/md/R19-WP5A-C-0359/en)).

– Development of the working document towards a preliminary draft new Report ITU-R M.[UTILITIES] – “Utility Radiocommunication Systems” ([Annex 18](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N18!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Development of working document towards a preliminary draft revision of Recommendation ITU-R M.1450-5- Characteristics of broadband radio local area networks ([Annex 15](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N15!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Development of working document towards a preliminary draft revision of Recommendation ITU-R M.1801-2- Radio interface standards for broadband wireless access systems, including mobile and nomadic applications, in the mobile service operating below 6 GHz ([Annex 16](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N16!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Development of working document towards a preliminary draft new Report ITU-R M.[bb-WAS.freq] – “Frequencies used by systems based on radio interface standards for broadband wireless access” ([Annex 17](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N17!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Development of working document towards a preliminary draft revision of Recommendation ITU-R M.2134-5- Receiver characteristics and protection criteria for systems in the mobile service in the frequency range 27.5-29.5 GHz for use in sharing and compatibility studies ([Annex 11](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0221!N11!MSW-E) to [Doc. 5A/221](http://www.itu.int/md/R19-WP5A-C-0221/en)).

– Development of working document towards a preliminary draft new Report ITU-R M.[AUDIO-PMSE\_LMS] - [Status and trends regarding regional and global usage of audio applications of PMSE in the land mobile service] ([Annex 19](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N19!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Continue the work on the WAS Study Questions based on input contributions.

**3) Public protection and disaster relief**

– Further develop the editorial, or more substantive, revisions to Report ITU-R M.2377-1 – “Radiocommunication objectives and requirements for Public Protection and Disaster Relief”, based on input contributions ([Annex 20](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N20!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Further develop the working document toward a revision of Resolution ITU-R 55-3 – “ITU-R studies of disaster prediction, detection, mitigation and relief”, based on input contributions ([Annex 21](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N21!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Develop the scope and structure of a possible handbook on emergency communications under the land mobile service, based on input contributions.

**4) Interference and sharing**

– Progress the ongoing draft revision of Report ITU-R M.2116, in particular for WAS/RLAN parameters for the 6 GHz range ([Annex 19](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0359!N19!MSW-E) to [Doc. 5A/359](https://www.itu.int/md/R19-WP5A-C-0359/en)).

– Progress work on the PDN Report ITU-R M.[252-296 GHZ.LMS.FS.COEXIST] and consider whether it can be completed and submitted to SG5 ([Annex 23](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N23!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Continue developing the working document on sharing and compatibility studies related to WRC-23 agenda item 1.3 with a view to finalize it, if necessary, for submission to SG5 ([Annex 22](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N22!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Continue work on the working document towards a preliminary draft new Report ITU-R M.[LMS.CONDITIONS>275GHz] ([Annex 24](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N24!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

**5) New technologies**

– Continue to develop a working document towards a PDR of Recommendation ITU-R M.2121 – “Harmonization of frequency bands for Intelligent Transport Systems in the mobile service” ([Annex 25](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0359!N25!MSW-E) to [Doc. 5A/359](https://www.itu.int/md/R19-WP5A-C-0359/en)).

– Continue to develop a working document towards a PDN revision of Report ITU-R M.2444 – “Examples of arrangements for Intelligent Transport Systems deployments under the mobile service” ([Annex 24](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0491!N24!MSW-E) to [Doc. 5A/491](https://www.itu.int/md/R19-WP5A-C-0491/en)).

– Continue to develop a working document towards a PDN Report ITU-R M.[CAV] “Connected Automated Vehicles” ([Annex 25](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N25!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en)).

– Continue to develop a working document towards a preliminary draft new Report ITU-R M.[LMS.SPEC.NEED.ABOVE.275 GHz] – “Spectrum needs for land-mobile service applications in the frequency above 275 GHz” *(*[Annex 27](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0491!N27!MSW-E) to [Doc. 5A/491](https://www.itu.int/md/R19-WP5A-C-0491/en))*.*

– Continue to develop a working document towards the preliminary draft revision of Report ITU-R M.2479-0 – “The use of land mobile systems, excluding IMT, for machine-type communications” *(*[Annex 25](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0491!N25!MSW-E) to [Doc. 5A/491](https://www.itu.int/md/R19-WP5A-C-0491/en)), and to finalize it, taking into account its progress.

– Continue to discuss the suppression or revision of Recommendation ITU-R M.1307 – “Automatic determination of location and guidance in the land mobile services”.

**6) WRC-23 topic 9.1 c)**

– Consider input contributions received at 28th meeting and those carried forward from prior meetings of the study cycle;

– Continue to review existing F-Series Recommendations to provide a basis for future proposals to revise them and to consider new deliverables that address the resolves of Resolution 175 (WRC-19), as needed;

– Likewise review existing ITU-R SG 5 Study Questions that may be applicable and propose revisions, if determined to be necessary.

**7) Land Mobile Handbook**

– Consider the need to update the handbooks that are the responsibility of WP5A. The development of future volumes will be contribution driven.

**8) Vocabulary**

– Continue the development of the land mobile vocabulary and liaise with the CCV.

# 6 Future meetings

The next meeting of WP5A (#28) is scheduled to be held in the period from 14-25 November 2022. Two more meetings are scheduled for 2023: the 29th meeting (8-19 May) and the 30th meeting (11-22 September). Members are strongly advised to pay attention to the strict time deadline for contributions, as announced in the forthcoming [5/LCCE Circular Letter](https://www.itu.int/md/R00-SG05-CIR/e) announcing the meeting. It is also advised to submit the contributions early in the case there are technical difficulties with either the email servers or the files submitted, because the revision of input contributions is not possible after the deadline.

# 7 Progression of the work and concluding remarks

The work may continue by correspondence; however, no formal correspondence group was formed at the 27th meeting of WP5A. The correspondence groups conduct their work using the Share Point facilities as described in section 6.5 of [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N01!MSW-E) to [Doc. 5A/597](https://www.itu.int/md/R19-WP5A-C-0597/en).

[Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R19-WP5A-C-0597!N01!MSW-E) also summarizes the status of the texts that are the responsibility of WP5A (section 1), the structure of WP5A (section 2), and the list of contacts for liaison and collaboration with other organizations under Resolution ITU-R 9-5 (section 4).

The WP5A and wireless access systems (WAS) home pages can be found, respectively, at:

 <http://www.itu.int/ITU-R/go/rwp5a/en>

 <http://www.itu.int/ITU-R/go/rwp8a-was>.

In closing, the Chairman thanked all the WP5A participants for their hard work, and in particular the Chairmen of the Working Groups, Mses. Amy Sanders and Christine Di Lapi, and Messrs. Dale Hughes, Lang Baozhen, Michael Kraemer, and Hitoshi Yoshino; the Liaison Rapporteurs, Mses. Gabrielle Owen and Amy Sanders and Messrs. Jonathan Siverling, Paul Najarian, Hitoshi Yoshino, and Brian Copsey; the LMH Rapporteur, Mr Takahiko Yamazaki; the Vocabulary Rapporteur, Mr Brian Patten; and the BR, in particular the SG5 Counsellor, Mr Uwe Loewenstein, and his team in the BR study group department for the excellent support provided at the meetings, as well as the organizers and moderators that supported the meeting with the use of Zoom platform, in particular Ms Alicia Soto Romero.