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| **Radiocommunication Study Groups** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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|  | **Document 5A/736-E** |
| **3 August 2015** |
| **English only** |
| Chairman, Working Party 5A |
| report on the fIFTeenth meeting of working party 5a |
| (Bucharest, Romania, 6-16 July 2015) |

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Annexes

[1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N01!MSW-E) Working Party 5A Management

[2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N02!MSW-E) Consolidation of texts approved by Working Party 5A

[3](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N03!MSW-E) Consolidation of reports from the Working Groups of Working Party 5A
(Source: Docs. 5A/TEMP/293R1, 321R1, 329, 327, 328)

[4](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N04!MSW-E) Working document towards a preliminary draft revision of Recommendation ITU-R M.1732-1 - Characteristics of systems operating in the amateur and amateur-satellite services for use in sharing studies (Source: Doc. 5A/TEMP/294)

[5](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N05!MSW-E) Working document towards a preliminary draft revision of Report ITU-R M.2014-2 “Digital land mobile systems for dispatch traffic” (Source: Doc. 5A/TEMP/305)

[6](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N06!MSW-E) Elements for consideration in future discussions on Recommendation ITU-R M.2015
(Source: Doc. 5A/TEMP/318(Rev.1))

[7](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N07!MSW-E) Working document towards a preliminary draft new Report ITU-R M.[RLAN MITIGATION] - Possible additional mitigation techniques to facilitate sharing between RLAN systems and incumbent services (Source: Doc. 5A/TEMP/317)

[8](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N08!MSW-E) Compilation of technical information on techniques that could be used in RLAN deployments to facilitate sharing (Source: Doc. 5A/TEMP/316)

[9](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N09!MSW-E) Working document towards a preliminary draft new Report ITU-R M.[ITS USAGE] - Intelligent transport systems (ITS) usage in ITU-R member countries
(Source: Doc. 5A/TEMP/313R1)

[10](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N10!MSW-E) Working document towards a preliminary draft new Report ITU-R M.[RAIL.LINK] - Systems for [public] mobile communications with [train][railways]
(Source: Doc. 5A/TEMP/312R1)

[11](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N11!MSW-E) List of output documents

Annexes from previous WP 5A Chairman’s Reports that are being carried forward:

[Annex 25](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N25!MSW-E) to Doc. [5A/79](http://www.itu.int/md/R12-WP5A-C-0079/en): Working document towards a preliminary draft revision of Recommendation ITU-R M.1797 / draft new Recommendation ITU-R M.[5A/VOC] – Vocabulary of terms for the land mobile service.

Management documents referred to in the Report:

List of input documents: Doc. [5A/726(Rev.1)](http://www.itu.int/md/R12-WP5A-C-0726)

Final list of participants: Doc. [5A/735](http://www.itu.int/md/R12-WP5A-C-0735)

# 1 Introduction

Working Party 5A (WP 5A) held its fifteenth (15th) meeting from 6-16 July 2015 in Bucharest, Romania. The meeting participants (see list in [Doc. 5A/735](http://www.itu.int/md/R12-WP5A-C-0735)) included 146 participants from 29 countries representing 25 administrations, 3 registered operating agencies, 9 scientific or industrial organizations, 2 regional and other international organizations, one regional telecommunication organization, one intergovernmental organization operating satellite systems, one Academia, Universities and Associated Research Establishments, and the BR. WP 5A held three plenary sessions during the meeting period (on 6 and 10 July, and 16 July 2015).

The meeting dealt with 100 input documents (see list in [Doc. 5A/726(Rev.1)](http://www.itu.int/md/R12-WP5A-C-0726)) and upon their consideration the meeting prepared 42 output temporary documents (see list in [Annex 11](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N11!MSW-E)).

[Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N01!MSW-E) contains the management aspects of WP 5A, including a summary of the status of the texts that are the responsibility of WP 5A and the use of electronic facilities. The list of texts that are the responsibility of WP 5A have been kept up to date in line with [Doc. 5/2(Rev.3)](http://www.itu.int/md/R12-SG05-C-0002/en), including the assignment of responsibilities to the Working Groups of WP 5A and identification of topics for the Recommendations and Reports.

The Chairman’s Report of the fourteenth meeting of WP 5A ([Doc. 5A/636](http://www.itu.int/md/R12-WP5A-C-0636)) was adopted, including the objectives for the 15th meeting as presented in Section 4 of [Doc. 5A/636](http://www.itu.int/md/R12-WP5A-C-0636).

The structure of WP 5A for this meeting was also adopted as presented in Section 2.2 of Annex 1 to [Doc. 5A/636](http://www.itu.int/md/R12-WP5A-C-0636).

The Chairman asked the meeting participants to review the list of contacts that appears in Section 4 of Annex 1 to Doc. [5A/636](http://www.itu.int/md/R12-WP5A-C-0636) and inform him of any necessary changes (the final list appears in Section 4 of the updated [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N01!MSW-E) ([Doc. 5A/736](http://www.itu.int/md/R12-WP5A-C-0736/en)) and updates between meetings are maintained by the BR and the Chairman of WP 5A). 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 reported that all the submissions from the 14th meeting of WP 5A to SG 5 had been approved and the results are summarized in [Doc. 5A/659](http://www.itu.int/md/R12-WP5A-C-0659/en). The chairman also noted that the CPM Report to WRC-15 was now available ([Doc. CPM15.02-R-0001](http://www.itu.int/md/R12-CPM15.02-R-0001/en)) and reminded the meeting that the contributions from WP 5A for the draft CPM text are contained in Annexes 4-9 to [Doc. 5A/543](http://www.itu.int/md/R12-WP5A-C-0543/en).

The chairman of Study Group 5 presented his report with the results of the 22nd meeting of the RAG, 5-8 May 2015 ([Doc. 5A/667](http://www.itu.int/md/R12-WP5A-C-0667/en)).

The chairman reported that the results from [GSC-19](http://www.itu.int/en/ITU-T/gsc/19/Pages/default.aspx), 15-16 July 2015, would not be available in time to be considered by this meeting of WP 5A and the key results would be linked on the WP 5A web page as usual, including the GSC-19 [Documents](http://www.itu.int/en/ITU-T/gsc/19/Pages/documents.aspx).

At the opening plenary the results of the correspondence activity on local coverage held since the 14th meeting of WP 5A was noted, [Doc. 5A/665](http://www.itu.int/md/R12-WP5A-C-0665/en), and the detail discussions were held in WG 5A-2.

Four liaison statements were noted at the opening plenary, [Doc. 5A/641](http://www.itu.int/md/R12-WP5A-C-0641/en) (WP 5C), [Doc.5A/644](http://www.itu.int/md/R12-WP5A-C-0644/en) (WMO), [Doc. 5A/649](http://www.itu.int/md/R12-WP5A-C-0649/en) (ITU-D/ITU-R Joint Group for Resolution 9), and [Doc. 5A/664](http://www.itu.int/md/R12-WP5A-C-0664/en) (WP 3K), and the working groups were advised to use the information as they see it fit and draft responses if necessary.

The work program for the WP 5A meeting presented in [Doc. 5A/ADM/29](http://www.itu.int/md/R12-WP5A-ADM-0029/en) was updated and adopted. Since many WP 5A participants wanted to attend the [WP 5C workshop on mmWaves](http://www.itu.int/dms_pub/itu-r/oth/0a/06/R0A060000690001MSWE.docx) that would be held in the afternoon of the first day, the WP 5A schedule was adjusted accordingly.

At the opening Plenary the Chairman drew the attention of the meeting to the WP 5A texts that are listed in Section 1 of Annex 1 to [Doc. 5A/636](http://www.itu.int/md/R12-WP5A-C-0636), asking each Working Group to review the texts assigned to them. It was noted that at this meeting changes would be required to the [Guide to the use of ITU-R texts related to the land mobile service](http://www.itu.int/oth/R0A06000001/en) on the basis of [Doc. 5A/659](http://www.itu.int/md/R12-WP5A-C-0659/en) and Canada presented [Doc. 5A/701](http://www.itu.int/md/R12-WP5A-C-0701/en) to assist with the update. The Chairman tasked the working groups with reviewing the corresponding sections of the Guide and the draft update was approved at the closing Plenary.

The Chairman pointed out the guidelines for the preparation of WP 5A texts in Section 2.3 of Annex 1 to [Doc. 5A/636](http://www.itu.int/md/R12-WP5A-C-0636).

The Chairman also pointed out the work on Vocabulary ([Annex 25](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N25!MSW-E) to Doc. [5A/79](http://www.itu.int/md/R12-WP5A-C-0079), [Res. 33-3](http://www.itu.int/pub/R-RES-R.33/en), [Res. 34-3](http://www.itu.int/pub/R-RES-R.34/en), [Res. 35-3](http://www.itu.int/pub/R-RES-R.35/en), and [Res. 36-3](http://www.itu.int/pub/R-RES-R.36/en)) and presented [Doc. 5A/729](http://www.itu.int/md/R12-WP5A-C-0729/en) that was considered in WG 5A-2 and developed a liaison response to CCV.

The chairman asked the working groups to review the preliminary revisions Questions carried forward from the previous meeting in [Annex 4](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0636!N04!MSW-E) of [Doc. 5A/636](http://www.itu.int/md/R12-WP5A-C-0636), considering the relevant input contributions. At the closing Plenary the consolidated draft revision of questions were approved for submission to SG 5 ([Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N02!MSW-E)).

The chairman of Study Group 5 presented [Doc. 5A/663R1](http://www.itu.int/md/R12-WP5A-C-0663/en) asking for an update on the progress of the studies by WP 5A as requested by WRC Resolutions and Recommendations, referring also to [Doc. CPM15-2/195](http://www.itu.int/md/R12-CPM15.02-C-0195/en). This, as well as an update on the work conducted by WP 5A in support of ITU-R Resolutions, was included in the Executive Report to SG 5 in [Doc. 5/242](http://www.itu.int/md/R12-SG05-C-0242/en).

The Liaison Rapporteurs presented their reports during the 3 Plenary sessions of WP 5A, including on [Disaster Relief](http://www.itu.int/ITU-R/index.asp?category=information&link=emergency&lang=en) by Amy Sanders ([Doc. 5A/724](http://www.itu.int/md/R12-WP5A-C-0724/en)), on WWRF by Hitoshi Yoshino ([Doc. 5A/730](http://www.itu.int/md/R12-WP5A-C-0730/en)), on certain countries in Region 2 by Brennan Price ([Doc. 5A/731R1](http://www.itu.int/md/R12-WP5A-C-0731/en)), on certain countries in Region 1 by Gabrielle Owen ([Doc. 5A/732](http://www.itu.int/md/R12-WP5A-C-0732/en)), and on certain countries in Region 3 by Hitoshi Yoshino ([Doc. 5A/734](http://www.itu.int/md/R12-WP5A-C-0734/en)).

# 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 14th meeting of WP 5A (Section 4 of [Doc. 5A/636](http://www.itu.int/md/R12-WP5A-C-0636/en)) noting that need to consider also the proposals in the input contributions for the fifteenth meeting.

In view of the nature of the input contributions to WP 5A and WP 5C there was no need to hold a joint meeting of the two Working Parties; nevertheless both working parties considered jointly the proposed updates to [Question ITU-R 242-1/5](http://www.itu.int/pub/R-QUE-SG05.242). Future actions regarding updates of documents that have a joint 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 the five Working Groups. The responsibilities for input contributions were assigned as per [Table 1](#t1), showing also the organization of the work for the meeting. (The documents in the rows “Reports” and “General” were assigned to all the Working Groups).

The Working Groups prepared draft revised/new Recommendations, Reports, and liaison statements, and progress reports on the work conducted. The detailed reports from the Working Groups are contained in [Annex 3](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N03!MSW-E). The texts proposed by these Working Groups in TEMP documents ([Annex 11](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N11!MSW-E)) were considered by WP 5A and are either annexed to this report for further work to be considered at future meetings of WP 5A or were approved 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=R12-WP5A-C-0736!N02!MSW-E)).

TABLE 1

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

NOTE – Documents are posted at <http://www.itu.int/md/R12-WP5A-C/en>

|  |
| --- |
| **Working Party 5A (Chairman:** **José Costa****, Canada)** |
| **Reports** | [636](http://www.itu.int/md/R12-WP5A-C-0636/en) (Chairman, WP 5A); [724](http://www.itu.int/md/R12-WP5A-C-0724/en) (Disaster Relief L.R.); [726](http://www.itu.int/md/R12-WP5A-C-0726/en) (List of Documents); [730](http://www.itu.int/md/R12-WP5A-C-0730/en) (WWRF L.R.); [731R1](http://www.itu.int/md/R12-WP5A-C-0731/en) (L.R. #2); [732](http://www.itu.int/md/R12-WP5A-C-0732/en) (L.R. #1); [734](http://www.itu.int/md/R12-WP5A-C-0734/en) (L.R. #3); [735R1](http://www.itu.int/md/R12-WP5A-C-0735/en) (List of participants) |
| **General** | [79](http://www.itu.int/md/R12-WP5A-C-0079) [Annex 25](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N25!MSW-E), [636](http://www.itu.int/md/R12-WP5A-C-0636/en) [Annex 4](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0636!N04!MSW-E) (WP 5A); [641](http://www.itu.int/md/R12-WP5A-C-0641/en) (WP 5C); [644](http://www.itu.int/md/R12-WP5A-C-0644/en) (WMO); [655](http://www.itu.int/md/R12-WP5A-C-0655/en) (WP 5D); [659](http://www.itu.int/md/R12-WP5A-C-0659/en) (Chairman, WP 5A); [663R1](http://www.itu.int/md/R12-WP5A-C-0663/en), [667](http://www.itu.int/md/R12-WP5A-C-0667/en) (Chairman, SG 5); [701](http://www.itu.int/md/R12-WP5A-C-0701/en) (Canada); [729](http://www.itu.int/md/R12-WP5A-C-0729/en) (Chairman, WP 5A) |
| **Working Group 1: Amateur Services (Chairman:** **Dale Hughes****, Australia)** |
| **Amateur texts** | [689](http://www.itu.int/md/R12-WP5A-C-0689/en) (USA); [694](http://www.itu.int/md/R12-WP5A-C-0694/en) (Australia); [720](http://www.itu.int/md/R12-WP5A-C-0720/en), [721](http://www.itu.int/md/R12-WP5A-C-0721/en), [722](http://www.itu.int/md/R12-WP5A-C-0722/en)-Amateur (IARU) |
| **Morse code** | [640](http://www.itu.int/md/R12-WP5A-C-0640/en) (WP 5B) |
| **Working Group 2: Systems and standards (Chairman:** **Lang Baozhen****, China)** |
| **Broadband Wireless Access** | [642](http://www.itu.int/md/R12-WP5A-C-0642/en) (WP 5C); [646](http://www.itu.int/md/R12-WP5A-C-0646/en) (ITU-T SG 15); [651](http://www.itu.int/md/R12-WP5A-C-0651/en) (WP 5D); [664](http://www.itu.int/md/R12-WP5A-C-0664/en) (WP 3K); [673](http://www.itu.int/md/R12-WP5A-C-0673/en), [674](http://www.itu.int/md/R12-WP5A-C-0674/en) (WP 1B);  |
| **Local coverage aspects** | [636](http://www.itu.int/md/R12-WP5A-C-0636/en) [Annex 5](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0636!N05!MSW-E) (WP 5A); [665](http://www.itu.int/md/R12-WP5A-C-0665/en) (CG on Rep. Local Coverage); [686](http://www.itu.int/md/R12-WP5A-C-0686/en) (China); [702](http://www.itu.int/md/R12-WP5A-C-0702/en) (Canada); [705](http://www.itu.int/md/R12-WP5A-C-0705/en), [706](http://www.itu.int/md/R12-WP5A-C-0706/en) (Japan) |
| **Hearing aids and related** | [650](http://www.itu.int/md/R12-WP5A-C-0650/en) (ITU-D SG 1 Rapporteur); [658](http://www.itu.int/md/R12-WP5A-C-0658/en) (SG 5) |
| **ANTs** | [647](http://www.itu.int/md/R12-WP5A-C-0647/en), [648](http://www.itu.int/md/R12-WP5A-C-0648/en) (ITU-T SG 15) |
| **Out-of-band emissions**  | [654](http://www.itu.int/md/R12-WP5A-C-0654/en) (WP 5D); [670](http://www.itu.int/md/R12-WP5A-C-0670/en) (WP 1A) |
| **Support to WG 4 on RLANs** | *See AI 1.1 below* |
| **Smart grid** | [683](http://www.itu.int/md/R12-WP5A-C-0683/en) (WP 1A) |
| **M.2014** | [707](http://www.itu.int/md/R12-WP5A-C-0707/en) (Japan) |
| **Working Group 3: PPDR (Chairman:** **Amy Sanders****, USA)** |
| **PPDR General** | [662](http://www.itu.int/md/R12-WP5A-C-0662/en) (APT); [722](http://www.itu.int/md/R12-WP5A-C-0722/en)-Mobile (IARU) |
| **Draft new Rep. ITU-R M.[PPDR] & Supp. of M.2033**  | [636](http://www.itu.int/md/R12-WP5A-C-0636/en) [Annex 6](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0636!N06!MSW-E) (WP 5A); [684R1](http://www.itu.int/md/R12-WP5A-C-0684/en) (China); [690](http://www.itu.int/md/R12-WP5A-C-0690/en) (Australia, Canada, UK/CEPT, USA); [691](http://www.itu.int/md/R12-WP5A-C-0691/en) (UK); [695](http://www.itu.int/md/R12-WP5A-C-0695/en), [696](http://www.itu.int/md/R12-WP5A-C-0696/en) (Australia); [699](http://www.itu.int/md/R12-WP5A-C-0699/en) (Canada); [713](http://www.itu.int/md/R12-WP5A-C-0713/en) (Motorola Solutions); [714](http://www.itu.int/md/R12-WP5A-C-0714/en) (Korea); [719](http://www.itu.int/md/R12-WP5A-C-0719/en) (Israel); [723](http://www.itu.int/md/R12-WP5A-C-0723/en) (India) |
| **Update of Rec. ITU-R M.2015** | [636](http://www.itu.int/md/R12-WP5A-C-0636/en) [Annex 7](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0636!N07!MSW-E) (WP 5A); [679](http://www.itu.int/md/R12-WP5A-C-0679/en) (UK); [697](http://www.itu.int/md/R12-WP5A-C-0697/en), [698](http://www.itu.int/md/R12-WP5A-C-0698/en) (Australia); [715](http://www.itu.int/md/R12-WP5A-C-0715/en) (Korea) |
| **Disaster management** | [645](http://www.itu.int/md/R12-WP5A-C-0645/en) (ITU-T SG 15);  |
|  |  |
| **Working Group 4: Interference and sharing (Chairman:** **Michael Kraemer****, Germany)** |
| **Sharing studies (general)** | [637](http://www.itu.int/md/R12-WP5A-C-0637/en) (WP 5C); [643](http://www.itu.int/md/R12-WP5A-C-0643/en) (WP 6A); [666](http://www.itu.int/md/R12-WP5A-C-0666/en) (WP 3M); [693](http://www.itu.int/md/R12-WP5A-C-0693/en) (Saudi Arabia, Bahrain, UAE, and Jordan); [704](http://www.itu.int/md/R12-WP5A-C-0704/en) (Japan); [728](http://www.itu.int/md/R12-WP5A-C-0728/en) (WP 4A) |
| **Dynamic Access – sharing** | [638](http://www.itu.int/md/R12-WP5A-C-0638/en) (WP 5B); [649](http://www.itu.int/md/R12-WP5A-C-0649/en) (ITU-D/ITU-R Joint Group for Resolution 9); [656](http://www.itu.int/md/R12-WP5A-C-0656/en) (WP 5D); [672](http://www.itu.int/md/R12-WP5A-C-0672/en) (WP 1B) *(support WG 5 on sharing & coexistence)* |
| **Human exposure to RF fields** | [652](http://www.itu.int/md/R12-WP5A-C-0652/en), [657](http://www.itu.int/md/R12-WP5A-C-0657/en) (ITU-T SG 5); [661](http://www.itu.int/md/R12-WP5A-C-0661/en) (WP 6A) |
| **ITU-T interference** | [639](http://www.itu.int/md/R12-WP5A-C-0639/en) (WP 5B); [653](http://www.itu.int/md/R12-WP5A-C-0653/en) (ITU-T SG 5); [660R1](http://www.itu.int/md/R12-WP5A-C-0660/en) (SG 6); [675](http://www.itu.int/md/R12-WP5A-C-0675/en), [676](http://www.itu.int/md/R12-WP5A-C-0676/en), [677](http://www.itu.int/md/R12-WP5A-C-0677/en) (WP 1A); [733](http://www.itu.int/md/R12-WP5A-C-0733/en) (ITU-T SG 9) |
| **AI 1.1 (Res. 233)** | [636](http://www.itu.int/md/R12-WP5A-C-0636/en) [Annex 8](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0636!N08!MSW-E), [Annex 9](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0636!N09!MSW-E) (WP 5A); [688](http://www.itu.int/md/R12-WP5A-C-0688/en) (USA); [700](http://www.itu.int/md/R12-WP5A-C-0700/en), [703](http://www.itu.int/md/R12-WP5A-C-0703/en) (Canada) |
| **AI 1.2 (Res. 232)** |  |
| **AI 1.5 (UAS Res. 153)** |  |
| **AI 1.6 (FSS Res. 151, 152)** |  |
| **(AI 1.7) (FSS in ~5100 MHz)** |  |
| **AI 1.8 (ESV res. 909)** | [725](http://www.itu.int/md/R12-WP5A-C-0725/en) (WP 4A) |
| **AI 1.9.1, 1.9.2 (FSS Res. 758)** | [727](http://www.itu.int/md/R12-WP5A-C-0727/en) (WP 4A) |
| **AI 1.10 (MSS Res. 234)** | [687](http://www.itu.int/md/R12-WP5A-C-0687/en) (WP 4C) |
| **AI 1.11 (EESS Res. 650)** |  |
| **AI 1.12 (EESS Res. 651)** |  |
| **AI 1.13 (SRS Res. 652)** |  |
| **AI 1.15 (MMS Res. 358)** |  |
| **AI 1.16 (AIS Res. 360)** |  |
| **AI 1.17 (WAIC Res. 423)** |  |
| **Working Group 5: New technologies (Chairman:** **Hitoshi Yoshino****, Japan)** |
| **Dynamic Access – technol.** | [638](http://www.itu.int/md/R12-WP5A-C-0638/en) (WP 5B); [649](http://www.itu.int/md/R12-WP5A-C-0649/en) (ITU-D/ITU-R Joint Group for Resolution 9); [656](http://www.itu.int/md/R12-WP5A-C-0656/en) (WP 5D); [672](http://www.itu.int/md/R12-WP5A-C-0672/en) (WP 1B) *(WG 5 to lead the liaison responses)* |
| **ITS** | [636](http://www.itu.int/md/R12-WP5A-C-0636/en) [Annex 10](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0636!N10!MSW-E), [Annex 11](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0636!N11!MSW-E), [Annex 12](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0636!N12!MSW-E), [Annex 13](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0636!N13!MSW-E) (WP 5A); [668](http://www.itu.int/md/R12-WP5A-C-0668/en), [669](http://www.itu.int/md/R12-WP5A-C-0669/en) (IEEE); [671](http://www.itu.int/md/R12-WP5A-C-0671/en) (WP 1B); [685](http://www.itu.int/md/R12-WP5A-C-0685/en) (China); [692](http://www.itu.int/md/R12-WP5A-C-0692/en) (Beijing University of Posts and Telecommunications, China Mobile, Datang, Huawei); [709](http://www.itu.int/md/R12-WP5A-C-0709/en), [710](http://www.itu.int/md/R12-WP5A-C-0710/en), [711](http://www.itu.int/md/R12-WP5A-C-0711/en), [712](http://www.itu.int/md/R12-WP5A-C-0712/en) (Japan); [716](http://www.itu.int/md/R12-WP5A-C-0716/en), [717](http://www.itu.int/md/R12-WP5A-C-0717/en), [718](http://www.itu.int/md/R12-WP5A-C-0718/en) (Korea) |
| **> 275 GHz** | [678](http://www.itu.int/md/R12-WP5A-C-0678/en), [680](http://www.itu.int/md/R12-WP5A-C-0680/en), [681](http://www.itu.int/md/R12-WP5A-C-0681/en), [682](http://www.itu.int/md/R12-WP5A-C-0682/en) (WP 1A); [708](http://www.itu.int/md/R12-WP5A-C-0708/en) (Japan) |

# 3 Executive summary of the results of the meeting

## 3.1 Summary of documents approved by WP 5A

The list of texts that are the responsibility of WP 5A was updated in line with [Doc. 5/2(Rev.3)](http://www.itu.int/md/R12-SG05-C-0002), including the assignment of responsibilities to the Working Groups of WP 5A and identification of topics for the Recommendations and Reports ([Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N01!MSW-E)).

The consolidation of all the texts approved by WP 5A, including the liaison statements and proposals to Study Group 5, appears in [Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N02!MSW-E).

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

The summary of proposals and documents submitted by Working Party 5A to Study Group 5 are given in Section 2 of [Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N02!MSW-E).

## 3.3 Amateur and amateur-satellite services

A draft revision of Recommendation ITU-R M.1544-0 “Minimum qualifications of radio amateurs” was completed and submitted to Study Group 5. A working document was initiated towards a preliminary 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 4](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N04!MSW-E)).

**3.4 Systems and standards**

A draft new Report ITU-R M.[LOCAL\_COVERAGE] “Operational guidelines for the deployment of broadband wireless access systems for local coverage operating below 6 GHz” was completed and submitted to Study Group 5. A working document towards a preliminary draft revision of Report ITU-R M.2014 was initiated ([Annex 5](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N05!MSW-E)).

**3.5 Public protection and disaster relief**

A draft new Report ITU-R M.[PPDR] "Radiocommunication objectives and requirements for Public Protection and Disaster Relief (PPDR)" was completed and submitted to Study Group 5 in support of WRC-15 agenda item 1.3, along with the proposed suppression of [Report ITU-R M.2033](http://www.itu.int/pub/R-REP-M.2033) which it replaces. Some elements for consideration in future discussions on [Recommendation ITU-R M.2015](http://www.itu.int/rec/R-REC-M.2015/en) were developed and are attached to the WP 5A Chairman’s Report for further work ([Annex 6](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N06!MSW-E)).

**3.6 Interference and sharing**

Discussions continued on a working document towards a preliminary draft new Report ITU-R M.[RLAN MITIGATION] describing possible additional mitigation techniques to facilitate sharing between RLAN systems and incumbent services and a compilation document with information on techniques that could be used in RLAN deployments to facilitate sharing. However, it was not possible to agree on the revisions proposed in input contributions and both documents are re-attached to the Chairman’s Report for future consideration ([Annex 7](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N07!MSW-E) and [Annex 8](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N08!MSW-E)).

**3.7 New technologies**

A draft new Recommendation ITU-R M.[V2X] “Radio interface standards of vehicle-to-vehicle and vehicle-to-infrastructure communications for Intelligent Transport System applications” and a draft revision of Report ITU-R M.2228 “Advanced Intelligent Transport System Radiocommunications” were completed and submitted to Study Group 5. Continued to develop a working document towards a preliminary draft new Report ITU-R M.[ITS USAGE] “Intelligent transport systems usage in ITU-R member states” ([Annex 9](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N09!MSW-E)) and a working document towards a preliminary draft new Report ITU‑R M.[RAIL.LNK] “Systems for [public] mobile communications with [train][railways]” ([Annex 10](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N10!MSW-E)). Work has also been initiated on technical and operational characteristics of the land mobile service in the frequency range 275-1 000 GHz and completed a draft new Question ITU-R [THZ LAND MOBILE CHA] for submission to Study Group 5.

**3.8 Land Mobile Handbook**

Since the publication of Volume 5 (Deployment of broadband wireless access systems) no further activity on handbooks has been undertaken yet; WP 5A is maintaining liaison with ITU-D Study Group 2 to assist them with their work.

## 3.9 Vocabulary

The working document towards the development of the land mobile vocabulary with a view to develop either a new Recommendation or a future revision of the existing [Recommendation ITU‑R M.1797](http://www.itu.int/rec/R-REC-M.1797/en) will be considered at future meetings ([Annex 25](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N25!MSW-E) to Doc. [5A/79](http://www.itu.int/md/R12-WP5A-C-0079/en)). WP 5A sent two liaison statements to the Coordination Committee for Vocabulary (CCV) ([Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N02!MSW-E)).

# 4 Objectives for the sixteenth meeting of WP 5A

The principal objective for the 16th meeting of Working Party 5A will be to assess any work that may need to be conducted by WP 5A in support for the preparations for WRC-19 and to continue the work on the study questions assigned to WP 5A.

Based on the reports from the Working Groups, the following overall objectives are tentatively set for the 16th meeting of WP 5A:

1) Amateur and amateur-satellite

– Continue to review and update as necessary ITU-R Recommendations, Reports and Handbooks relevant to the amateur and amateur-satellite services;

– review ITU-D Questions, Recommendations, Reports and Handbooks relevant to the amateur and amateur-satellite services and, if necessary, develop liaison statements to responsible ITU-D Study Groups;

– progress the working document towards a preliminary draft revision of Recommendation ITU R M.1732-1 - Characteristics of systems operating in the amateur and amateur-satellite services for use in sharing studies ([Annex 4](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N04!MSW-E)).

2) Systems and standards

– Continue the work on WAS Study Questions on the basis of input contributions and, in particular, to continue the work on the:

- Development of a preliminary draft revision of Report ITU-R M.2014 ([Annex 5](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N05!MSW-E)).

3) Public protection and disaster relief

– The further development of the “Elements for consideration in future discussions on Recommendation ITU-R M.2015” ([Annex 6](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N06!MSW-E));

– the possible development of a Recommendation or Report on spectrum requirements for public protection and disaster relief.

4) Interference and sharing

‑ Review the ongoing work on the revision of Recommendation ITU-R P.619 (see Document 5A/666) and provide comments to WP 3M as appropriate;

‑ review the ongoing work in WP 4A on the working document towards a Preliminary Draft New Recommendation ITU‑R SF.[INTERF.AREA] (see [Document 5A/728](http://www.itu.int/md/R12-WP5A-C-0728/en)) and provide comments to WP 4A as appropriate;

‑ continue to develop the working document towards a PDN Report ITU-R M.[RLAN MITIGATION] on possible additional mitigation techniques to facilitate sharing between RLAN systems and incumbent services ([Annex 7](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N07!MSW-E));

‑ further work on the compilation of technical information on techniques that could be used in RLAN deployments to facilitate sharing ([Annex 8](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N08!MSW-E));

‑ consider the proposal to revise Recommendation ITU-R M.1652 or to develop a new Recommendation in this regard.

5) New technologies

– Continue the development of 1) working document towards a preliminary draft new Report ITU-R M.[ITS USAGE] ([Annex 9](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N09!MSW-E)), and 2) working document toward a preliminary draft new Report M.[RAIL.LINK] ([Annex 10](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N10!MSW-E)), with regard to ITS;

– discuss a possible update of the handbook Volume 4 "Intelligent Transport Systems" of the Land Mobile Handbook (LMH);

– continue the work on technical and operational characteristics of the land mobile service in the frequency range 275-1 000 GHz.

6) Land Mobile Handbook

– Consider the need to update the handbooks that are the responsibility of WP 5A. The development of future volumes will be contribution driven.

7) Vocabulary

– Continue the development of the land mobile vocabulary ([Annex 25](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N25!MSW-E) to [Doc. 5A/79](http://www.itu.int/md/R12-WP5A-C-0079/en)) with a view to develop either a new Recommendation or a future revision of the existing [Recommendation ITU-R M.1797](http://www.itu.int/rec/R-REC-M.1797/en).

# 5 Future meetings

The next meeting of WP 5A (#16) is scheduled to be held from 9-19 May 2016 in Geneva. The **Circular Letter** [5/LCCE](http://www.itu.int/md/R00-SG05-CIR/e) **containing the official announcement of the meeting is expected to be issued in January 2016 and it will contain the exact date and time deadline for the submission of contributions** [[1]](#footnote-1)[1]**.**

# 6 Progression of the work and concluding remarks

Working Party 5A noted that some of the volumes of the Land Mobile Handbook (including Wireless Access) may need to be updated and the Rapporteur of the Land Mobile Handbook (including Wireless Access) was asked to consider initiating activities by correspondence with the objective of presenting the results at the 16th meeting of Working Party 5A. Those interested in contributing are invited to contact the Handbook Rapporteur, refer to Sections 1.3, 2.2, and 5 of [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0736!N01!MSW-E).

The WP 5A 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>.

The Chairman thanks all the WP 5A participants for their hard work, and in particular the Chairmen of the Working Groups, Ms. Amy Sanders and Messrs. Dale Hughes, Lang Baozhen, Michael Kraemer, and Hitoshi Yoshino; the LMH Rapporteur, Dr. Gabrielle Owen; the vocabulary Rapporteur, Mr. Christian Rissone; the Liaison Rapporteurs, Mses. Gabrielle Owen and Amy Sanders and Messrs. Brennan Price, Paul Najarian, Hitoshi Yoshino, and Brian Copsey; and the BR, in particular the WP 5A Counsellor, Mr. Sergio Buonomo, and the staff of the BR study group department for the excellent support provided at the meetings, as well as the local secretariat of the host country for the excellent facilities provided.

In closing, the Chairman noted that this was the final meeting of WP 5A for the 2012-2015 Study Period and mentioned that the Administration of Canada has proposed him as a candidate for Chairman of Study Group 5, which will be considered at the Radiocommunication Assembly 2015 ([RA-15](http://www.itu.int/en/ITU-R/conferences/RA/2015/Pages/default.aspx)). If elected for that position, a new Chairman of WP 5A will need to be appointed. The Chairman indicated his intention to continue one way or the other and thanked his employer, Ericsson, and the Administration of Canada for their continued support for his work in ITU-R.

At the closing of the 15th meeting of Working Party 5A also thanked the Administration of Romania and ANCOM for hosting the 15th meeting of Working Party 5A.

1. [1] Members are strongly advised to pay attention to the strict time deadline. Contributions received after the deadline will be considered at the fifteenth meeting of WP 5A. Quote from Section 8.3 of [Resolution ITU-R 1-6](http://www.itu.int/pub/R-RES-R.1-6-2012): “the membership is encouraged to submit contributions (including Revisions, Addenda and Corrigenda to contributions) in order for them to be received 12 calendar days prior to the start of the meeting; and, in any case, contributions shall be received not later than seven calendar days (1600 hours UTC) prior to the start of the meeting to be made available for the opening of the meeting.” [↑](#footnote-ref-1)