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| **Radiocommunication Study Groups** |  |
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| Source: Documents 5A/TEMP/323(Rev.1),  339, 344, 355, 357, 359 | **Annex 3 to Document 5A/788-E** |
| **28 November 2011** |
| **English only** |
| Annex 3 to Working Party 5A Chairman’s Report | |
| consolidation of reports from the working groups of working party 5a | |
|  | |

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NOTE - Throughout this annex reference is made to the temporary documents (5A/TEMP/…) produced by the Working Groups. Since these documents are not kept, please refer to [Annex 10](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0788!N10!MSW-E) to find the final disposition of these documents by Working Party 5A.

# 1 Working Group 5A-1 – Amateur and amateur-satellite services (Chairman: Mr. Ken Pulfer, Canada)

## 1.1 Executive summary

Working Group 5A-1 completed studies on Agenda item 1.23. A preliminary draft new Report on amateur and experimental operations was revised to include new material and forwarded to WP 5A.

Work on the draft new Question related to amateur services temporary operation in other countries was discontinued.

Work continued on a review of ITU-R documentation relevant to the amateur and amateur-satellite services. One preliminary draft revised Recommendation, a preliminary draft revised Question, and a preliminary draft revised Report were sent to WP 5A for approval and forwarding to SG 5.

A working document towards a draft new Recommendation was sent to WP 5A for attachment to the Chairman’s Report.

## 1.2 General

Working Group 5A-1 was assigned seven input contributions, held five meetings and completed its work.

## 1.3 Agenda item 1.23 (WRC-12)

Input Documents [5A/740](http://www.itu.int/md/R07-WP5A-C-0740/en) (USA), [5A/756](http://www.itu.int/md/R07-WP5A-C-0756/en) (Australia) and [5A/760](http://www.itu.int/md/R07-WP5A-C-0760/en) (United Kingdom) were considered and incorporated into preliminary draft new Report ITU-R M.[AS EXP OP 415-526.5 kHz], and submitted to WP 5A as Doc. 5A/TEMP/325 for forwarding to SG 5 for approval.

## 1.4 Temporary operation

Document [5A/411](http://www.itu.int/md/R07-WP5A-C-0411/en), Annex 7, the preliminary draft new Question on temporary operation of amateur service stations in other countries, was withdrawn and work on the topic discontinued.

## 1.5 Review of ITU-R documentation relevant to the amateur and amateur-satellite services

Work continued on a review of ITU-R and ITU-D Questions, Recommendations and Reports relevant to the amateur and amateur-satellite services.

Document [5A/703](http://www.itu.int/md/R07-WP5A-C-0703/en), Annex 6 (WP 5A Chairman’s Report), 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, was considered and approved without further change. The preliminary draft revised Recommendation was sent to WP 5A as Doc. 5A/TEMP/322 for approval and forwarding to SG 5.

Document 5A/703, Annex 7 (WP 5A Chairman’s Report), a preliminary draft revision of Report ITU-R M.2085 - Role of the amateur and amateur-satellite services in support of disaster mitigation and relief was considered, modified and sent to WP 5A as Doc. 5A/TEMP/318 for approval and forwarding to SG 5.

A proposal for revisions to Question ITU-R 209-3/5iscontained in Document 5A/703, Annex 4.The revisions were considered and approved without further change. WG 1 requested that the revised Question be included in an omnibus proposal to be presented to the WP 5A plenary (Doc. 5A/TEMP/354).

Input Document [5A/744](http://www.itu.int/md/R07-WP5A-C-0744/en) (USA) containing a proposal for revision of the working document towards a preliminary draft new Recommendation ITU-R M.[VARICODE] was considered and incorporated. The revised working document was forwarded as Doc. 5A/TEMP/319 to WP 5A for attachment to the Chairman’s Report.

## 1.6 Other contributions

Input Documents [5A/691](http://www.itu.int/md/R07-WP5A-C-0691/en), [692](http://www.itu.int/md/R07-WP5A-C-0692/en), [693](http://www.itu.int/md/R07-WP5A-C-0693/en), [694](http://www.itu.int/md/R07-WP5A-C-0694/en), [695](http://www.itu.int/md/R07-WP5A-C-0695/en), [708](http://www.itu.int/md/R07-WP5A-C-0708/en), [719](http://www.itu.int/md/R07-WP5A-C-0719/en) and [731](http://www.itu.int/md/R07-WP5A-C-0731/en) were considered, but no further action was judged necessary at this time.

## 1.7 Objectives for the next meeting

– Prepare a work plan for the study period 2012 to 2015 based on the decisions of WRC‑12 and CPM-1.

– 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.

# **2** **Working Group 5A-2 – Systems and standards (Chairman: Mr. Lang Baozhen, China)**

Working Group 2 met five times at the eighth meeting of WP 5A in Geneva with approximately 30 delegates in attendance. WG 2 received the 22 documents remanded by the WP 5A plenary as follows:

|  |  |
| --- | --- |
| Sub-sections | Documents |
| 2.1 Q.101/5 (QoS) | [707](http://www.itu.int/md/R07-WP5A-C-0707) (MEF); [722](http://www.itu.int/md/R07-WP5A-C-0722) (ITU-T SG 12); [743](http://www.itu.int/md/R07-WP5A-C-0743) (USA); [748](http://www.itu.int/md/R07-WP5A-C-0748) (Canada) |
| 2.2 Update of Rec. ITU-R M.1073 | [703](http://www.itu.int/md/R07-WP5A-C-0703) (Annex 12) |
| 2.3 Questions [212](http://www.itu.int/pub/R-QUE-SG05.212/en), [215](http://www.itu.int/pub/R-QUE-SG05.215/en), [238](http://www.itu.int/pub/R-QUE-SG05.238/en) | [767](http://www.itu.int/md/R07-WP5A-C-0767) (Japan) |
| 2.4 Update of Rep. ITU-R M.1051 | [757](http://www.itu.int/md/R07-WP5A-C-0757) (China) |
| 2.5 ANTS & home networks | [710](http://www.itu.int/md/R07-WP5A-C-0710) (ITU-T SG 15); [730](http://www.itu.int/md/R07-WP5A-C-0730) (WP 5D) |
| 2.6 Handbook Vol. 5 (BWA) | [721](http://www.itu.int/md/R07-WP5A-C-0721), [726](http://www.itu.int/md/R07-WP5A-C-0726) (ITU-D SG 2) |
| 2.7 PPDR | [717](http://www.itu.int/md/R07-WP5A-C-0717) (ATIS); [724](http://www.itu.int/md/R07-WP5A-C-0724) (Canada); [731](http://www.itu.int/md/R07-WP5A-C-0731) (ITU-D SG 2); [741](http://www.itu.int/md/R07-WP5A-C-0741), [742](http://www.itu.int/md/R07-WP5A-C-0742) (USA); [751](http://www.itu.int/md/R07-WP5A-C-0751) (3GPP TSG RAN); [755](http://www.itu.int/md/R07-WP5A-C-0755) (Australia); [774](http://www.itu.int/md/R07-WP5A-C-0774) (India) |
| 2.8 MGWS (60 GHz) | [735](http://www.itu.int/md/R07-WP5A-C-0735) (ETSI); [754](http://www.itu.int/md/R07-WP5A-C-0754) (WGA) |
| 2.9 Update of Rep. ITU-R M.2014 | [703](http://www.itu.int/md/R07-WP5A-C-0703) (Annex 13) |

WG 2 set up 5 Drafting Groups to deal with M.[WAS.QOS], PPDR, MGWS, M.1051 and Questions respectively.

• DG5A2-1 QoS Dr. Gabrielle OWEN

• DG5A2-2 PPDR Ms. Amy SANDERS

• DG5A2-3 MGWS Mr. Reza AREFI

• DG5A2-4M.1051 Mr. Guang Han XU

• DG5A2-5Questions Ms. Yumi UEDA

## 2.1 Q.101/5 (QoS)

Regarding the development of M. [WAS.QoS], four contributions have been considered, Documents [5A/707](http://www.itu.int/md/R07-WP5A-C-0707) (MEF); [5A/722](http://www.itu.int/md/R07-WP5A-C-0722) (ITU-T SG 12); [5A/743](http://www.itu.int/md/R07-WP5A-C-0743) (USA); [5A/748](http://www.itu.int/md/R07-WP5A-C-0748) (Canada).

Based on the discussion at DG QoS and WG 2, delegations from Canada, United States, Ericsson and Alcatel-Lucent proposed to stop the current work on this working document. It has decided to revisit the topic during the next Study Period. WG 2 has developed reply liaison statements to MEF (Document 5A/TEMP/349) and ITU-T SG12 (Document 5A/TEMP/350) to inform the decision and looks forward to continue cooperation with ITU-T Study Group 12 on this issue in the future.

## 2.2 Update of Rec. ITU-R M.1073

At this meeting, WG 2 didn’t receive input on this topic.

WG 2 has submitted a revised document (Doc. 5A/TEMP/327(Rev.1)) with TIA update information to WP 5A plenary meeting for approval.

## 2.3 Questions

Based on Annex 4 to Document 5A/[703](http://www.itu.int/md/R07-WP5A-C-0703) and the contribution from Japan (Document 5A/[767](http://www.itu.int/md/R07-WP5A-C-0767)), DG Questions has revised all the Questions assigned to WG 2 and developed Document 5A/TEMP/330(Rev.1).

## 2.4 Update of Rep. ITU-R M.1051

DG M.1051 met 3 times in this meeting. The DG reviewed the China contribution (Document [5A/757](http://www.itu.int/md/R07-WP5A-C-0757)). Based on comments from the USA and Canada, DG modified the contribution to remove the contents that are related to aircraft equipment or aviation private networks to make the contribution or the working document within the scope of WP 5A.

At the fourth meeting of WG 2, USA, Motorola and Ericsson expressed strong opinions on suppressing the old Report ITU-R M.1051 and suggested starting a new report for the air to ground communication. Based on the discussion, WG 2 has reached the agreement to suppress the ITU-R Report ITU-R M.1051 and replace it with a new report. With that, the DG has developed a working document towards preliminary draft new Report ITU-R M.[LMS.ATG] (Document 5A/TEMP/345). The new working document incorporates contributions from Japan (Document [5A/457](http://www.itu.int/md/R07-WP5A-C-0457/en)), Canada (Document [5A/348](http://www.itu.int/md/R07-WP5A-C-0348/en)) and China (Document [5A/757](http://www.itu.int/md/R07-WP5A-C-0757/en)) with some modifications and editor’s notes including suggestions to update Annex III and expand more ATG systems in other countries. This working document will be carried forward and further developed at the next meeting of WP 5A.

## 2.5 Home networks

Regarding home networks, two liaison statements have been received, i.e. [Document 5A/710](http://www.itu.int/md/R07-WP5A-C-0710) (ITU‑T SG 15); [Document 5A/730](http://www.itu.int/md/R07-WP5A-C-0730) (WP 5D).

ITU-T SG 15 informs WP 5A on the status of the G.wnb narrow-band wireless home networking specifications. The liaison from WP 5D (Document [5A/730](http://www.itu.int/md/R07-WP5A-C-0730/en)) responded the liaison of ITU-T SG 15.

ITU-R WP 5A finds itself in a similar situation as WP 5D that needs additional time to fully respond to ITU-T SG 15 regarding the spectrum aspects under its purview. WP 5A supports the proposal from WP 5D to split the document into two separate recommendations, i.e., a radio related and a non-radio related recommendation. WP 5A also informs ITU-T SG15 the status on WASN and gives suggestions on systems that could be included in the studies.

## 2.6 Handbook Vol. 5 (BWA)

Land Mobile Handbook Vol. 5 is entitled “Deployment of Broadband Wireless Access (BWA) Systems”. WG 2 noted two input Documents [5A/721](http://www.itu.int/md/R07-WP5A-C-0721) and [5A/726](http://www.itu.int/md/R07-WP5A-C-0726) from ITU-D SG 2. These two liaison statements are just for information.

## 2.7 PPDR

The Drafting Group on PPDR met three times and considered eight input contributions, [5A/717](http://www.itu.int/md/R07-WP5A-C-0717) (ATIS); [5A/724](http://www.itu.int/md/R07-WP5A-C-0724) (Canada); [5A/731](http://www.itu.int/md/R07-WP5A-C-0731) (ITU-D SG 2); [5A/741](http://www.itu.int/md/R07-WP5A-C-0741), [5A/742](http://www.itu.int/md/R07-WP5A-C-0742) (USA); [5A/751](http://www.itu.int/md/R07-WP5A-C-0751) (3GPP TSG RAN); [5A/755](http://www.itu.int/md/R07-WP5A-C-0755) (Australia); [5A/774](http://www.itu.int/md/R07-WP5A-C-0774) (India).

Based on input contributions and discussion in the DG sessions, the working document toward a preliminary draft new Report ITU-R M.[LMS.PPDR.UHF Channels] was revised. The DG agreed to propose that the document (Doc. 5A/TEMP/343) be elevated to a PDNR report and carried forward in the Chairman’s Report. In addition, a liaison statement (Document 5A/TEMP/342) was developed to relevant PPDR external organizations calling their attention to the two narrowband technologies for which channelization scenarios had not been received.

In the course of the discussions, the meeting identified the need to address broadband applications of PPDR in greater detail. A draft workplan was developed that outlined some potential areas of work for the consideration of the meeting. The DG agreed that the workplan provided guidance for future work, and contributions from participants will drive and direct the work on this and all topics. The DG requested that WG 2 consider attaching the draft workplan (Document 5A/TEMP/344) to the Chairman’s Report to ensure that this important work item was not overlooked in the next study cycle (see [Appendix 1](#app1) to this Annex 3).

The remaining open issues in the preliminary draft new Report ITU-R M.[LMS.PPDR.UHF TECH] were addressed based on input contributions. The DG agreed to propose that the document (Document 5A/TEMP/338) be approved and forwarded to Study Group 5 for adoption.

The DG replied to a liaison statement from ITU-D Study Group 2 Question 22-1/2 “Utilization of telecommunications/ICT for disaster preparedness, mitigation, and response”, offering the names of experts to assist them in their work, and proposing continued cooperation.

Ms. Sujiya Pinnagoda from the BR presented the latest information on the database of currently available frequencies for use in emergency situations. In the past three years, only 25 administrations have provided information for the terrestrial database. Member countries were encouraged to submit the data as requested most recently in [Circular CR/323](http://www.itu.int/md/R00-CR-CIR-0323/en).

## 2.8 MGWS (60 GHz)

Two input contributions (Documents [5A/735](http://www.itu.int/md/R07-WP5A-C-0735) from ETSI and [5A/754](http://www.itu.int/md/R07-WP5A-C-0754) from WGA) were considered. Based on these received inputs, the preliminary draft new Recommendation and a preliminary draft new Report on “Multiple Gigabit Wireless Systems in frequencies around 60 GHz,” M.[LMS.MGWS1] and M.[LMS.MGWS2], have been further developed (Documents 5A/TEMP/324 and 328) and have been submitted to WP 5A for approval.

## 2.9 Update of Rep. ITU-R M.2014

In the eighth meeting of WP 5A, no response liaison was received from other SDOs. India delegate suggested removal of the text related to International Project Mesa from the Report of M.2014-1 to make the new revision of Report ITU-R M.2014-1 up to date. Based on discussion, WG 2 proposed and agreed to send another liaison to the external SDOs, particularly address to ETSI and TIA, to invite them to review and provide the input about International Project Mesa.

WG 2 would consider removing the text related to International Project Mesa in the draft revision of Report ITU-R M.2014-1 and expect to receive comments from ETSI and TIA by the next WP 5A meeting. WG 2 plans to complete the M.2014-1 revision work in May 2012 (Documents 5A/TEMP/326 and 5A/TEMP/352).

## 2.10 Review of ITU-R texts

Working Group 5A2 reviewed Section 1 of [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0703!N01!MSW-E) to [Document 5A/703](http://www.itu.int/md/R07-WP5A-C-0703) and made some minor update proposals.

## 2.11 Objectives for the next meeting

The objectives for the next meeting are to continue the work on WAS Study Questions on the basis of input contributions and, in particular, to continue the work on:

– Development of PDN Report M.[LMS.PPDR.UHF CHANNELS].

– Development of PDN Report M.[LMS.ATG].

– Development of a preliminary draft revision of Report ITU-R M.2014-1.

## 2.12 Chairman’s closing remarks

Finally, Chairman of WG 2 wishes to thank all participants of WG 2 for their contributions and cooperation and particularly thank DG Chair Mrs. Gabrielle Owen, Ms. Amy Sanders, Ms. YUMI UEDA, Mr. Reza Arefi and Mr. Guanghan Xu for their good and efficient work.

# 3 Working Group 5A-4 – Interference and sharing (Acting Chairman: Mr. Michael Kraemer, Germany)

# 3.1 Introduction

Working Group 5A-4 met four times during the November 2011 meeting of Working Party 5A. WG 5A-4 considered 16 input contributions and developed five output documents.

# 3.2 Considering of input documents

The following issues were considered based on input contributions as assigned to WG 5A-4 by the WP 5A opening plenary based on Document [5A/ADM/75](http://www.itu.int/md/R07-WP5A-ADM-0075/en).

### 3.2.1 Sharing in the 698-862 MHz range

Input documents: 5A/[720](http://www.itu.int/md/R07-WP5A-C-0720) (WP 6A); [729](http://www.itu.int/md/R07-WP5A-C-0729) (WP 5D)

WG 5A-4 took note of the progress of work in WP 6A on the assessment of interference into the broadcasting service from other services/applications as a result of which some documents have been submitted to SG 6 for approval while other documents are still under development within WP 6A or have been discontinued.

Furthermore, the completion of the work in WP 5D on compatibility between existing PPDR systems and IMT systems in the bands 698-806 MHz and 790-862 MHz, based on PPDR parameters as provided by WP 5A, was noted and no need for further comments from a WP 5A perspective was identified.

### 3.2.2 BWA band planning

Input document: 5A/[725](http://www.itu.int/md/R07-WP5A-C-0725) (Canada)

Output document: 5A/TEMP/347(Rev.1)

WG 5A-4 considered a proposal from Canada for a preliminary draft new Recommendation on BWA band planning and the suggestion to complete this PDNR for the November 2011 meeting of SG 5. While it was seen as an interesting idea to develop such a Recommendation, it was felt that more time was needed for administrations to consider this issue until the next meeting.

Therefore, as drafting group was created to discuss the document in detail, improve the understanding of delegates about the intentions of this proposal, and identify specific issues that would need to be addressed at the next WP 5A meeting to enable completion of the document.

The output of this DG was approved by WG 5A-4 as in Document 5A/TEMP/347(Rev.1). The meeting preferred to have this at the level of a working document towards a PDNR to reflect the fact that, based on the initial submission, a number of specific issues were identified through Editor’s Notes for which additional material and discussion at the next WP 5A meeting is required.

Nonetheless, it is certainly the intention emerging from the WG 5A-4 discussion that once those Editor’s Notes have been addressed at the next meeting, the document should go forward to the next SG 5 meeting for approval.

### 3.2.3 Update of Recommendations under joint 5A/5C responsibility

Input document: 5A/[702](http://www.itu.int/md/R07-WP5A-C-0702) (WP 5C)

WG 5A-4 took note of the proposed way forward from WP 5C on the revision of Recommendation ITU-R F.758-4 as described in the input contribution and agreed that this way forward as well as the draft revision itself as contained in Document [5/314](http://www.itu.int/md/R07-SG05-C-0314/en) are acceptable from a WG 5A-4 perspective.

Similarly, WG 5A-4 took note of the draft revision of Recommendation ITU-R F.746-9 as contained in Document [5/315](http://www.itu.int/md/R07-SG05-C-0315/en) and confirmed that this is acceptable from a WG 5A-4 perspective.

### 3.2.4 Impact of increased MSS emissions

Input document: 5A/[713](http://www.itu.int/md/R07-WP5A-C-0713) (WP 4C)

Output document: 5A/TEMP/346(Rev.1)

WG 5A-4 considered a liaison statement from WP 4C continuing the dialogue between the two groups on the preliminary draft new Report ITU-R M.[MSS-RDSS-Share] currently under development in WP 4C. The latest version of the document was reviewed and some comments were agreed back to WP 4C in a reply liaison statement.

Since the overall issue is also depending on the outcome of WRC-12 regarding Agenda item 1.18, it was suggested that once this liaison is approved by the WP 5A plenary the BR could be asked not to send out the document but put it on hold. After WRC-12, the chairman of WP 5A would then, in consultation with the counsellor, the WG 5A-4 chair and others, decide whether this document should still be sent, or whether the issue has been overtaken by events from WRC-12. It was noted that a similar approach had been suggested in WP 5B.

### 3.2.5 Database for the protection of radio services

Input documents: 5A/[708](http://www.itu.int/md/R07-WP5A-C-0708) (WPs of SG 5); 5A/[714](http://www.itu.int/md/R07-WP5A-C-0714) (WP 4C); 5A/[716](http://www.itu.int/md/R07-WP5A-C-0716) (WP 4A)

WG 5A-4 considered the views expressed regarding the database by WP 4A and WP 4C and did not see the need for further action at this stage since the WP 5A views were already contained in the joint WP 5A, 5B and 5C liaison statement developed at the last WP 5A meeting.

### 3.2.6 WRC-12 Agenda item 1.20

Input document: 5A/[705](http://www.itu.int/md/R07-WP5A-C-0705) (WP 5C)

WG 5A-4 took note of the liaison statement from WP 5C and did not see the need for further action at this WP 5A meeting.

### 3.2.7 IMT matters

Input documents: 5A/[706](http://www.itu.int/md/R07-WP5A-C-0706) (WP 5D); 5A/[715](http://www.itu.int/md/R07-WP5A-C-0715) (WP 4A); 5A/[723](http://www.itu.int/md/R07-WP5A-C-0723) (WP 7B)

WG 5A-4 took note of the liaison statements from Working Parties 4A, 5D and 7B and did not see the need for further action at this WP 5A meeting.

### 3.2.8 WRC-12 Agenda item 1.5

Input documents: 5A/[704](http://www.itu.int/md/R07-WP5A-C-0704) (WP 5C); 5A/[709](http://www.itu.int/md/R07-WP5A-C-0709) (RCC)

WG 5A-4 took note of the liaison statement from WP 5C on the progress of working regarding documents being developed related to WRC-12 Agenda item 1.5 dealing with Electronic News Gathering (ENG) and did not see the need to provide comments back to WP 5C at this stage.

Also, WG 5A-4 noted Document [5A/709](http://www.itu.int/md/R07-WP5A-C-0709) from RCC and saw it mainly as an input to the ongoing work in WP 5C on this topic, which would not require any comments from the WP 5A side.

### 3.2.9 Cross-border handbook

Input document: 5A/[746](http://www.itu.int/md/R07-WP5A-C-0746) (Russian Federation)

Output document: 5A/TEMP/323(Rev.1)

WG 5A-4 took note of the discussion held during the joint 5A/5C session during this SG 5 block meeting, where it was agreed that Document 5A/746 (submitted to WP 5C as Document [5C/585](http://www.itu.int/md/R07-WP5C-C-0585/en)) should be discussed in detail in the Joint Correspondence Group [5A/5C JCG] on this topic rather than during the WP 5A and 5C meetings itself (with overlapping schedules).

Additionally, WG 5A-4 agreed the modified terms of reference for this Joint Correspondence Group (as in Document 5A/TEMP/323(Rev.1)) based on the version that was developed in the joint 5A/5C session. See [Appendix 2](#app2) to this Annex 3.

### 3.2.10 Propagation handbook

Input document: 5A/[738](http://www.itu.int/md/R07-WP5A-C-0738) (SG 3)

Output document: 5A/TEMP/320(Rev.1)

WG 5A-4 considered the liaison statement from SG 3 on a Handbook on the selection and use of radio propagation models for interference prediction and ITU sharing studies under development in WP 3M and developed a draft joint reply liaison statement to SG 3 from WPs 5A, 5B and 5C (as in Document 5A/TEMP/320(Rev.1)). This draft was then submitted for consideration to WP 5B and WP 5C.

## 3.3 Review of WP 5A documents

The following issues were discussed and agreed related to various documents as captured in the Chairman’s Report from previous WP 5A meeting.

### 3.3.1 Editorial update of Recommendation ITU-R F.1401

Output document: 5A/TEMP/321

WG 5A-4 considered the editorial update of this Recommendation as captured in Appendix 1 to Annex 1 to Document [5A/411](http://www.itu.int/md/R07-WP5A-C-0411) and agreed a document for submission to SG 5 containing specific editorial instructions for the BR to carry out the editorial update of this Recommendation through the procedure specified in Section 11 of Resolution ITU-R 1-5.

### 3.3.2 Progress of studies requested by WRC Resolutions and Recommendations

WG 5A-4 had already at a previous WP 5A meeting considered the following text regarding the progress of work in relation to Resolution 229:

– Revision of Recommendation ITU-R M.1652 (Dynamic frequency selection (DFS) in wireless access systems (WAS) including radio local area networks (RLAN) for the purpose of protecting the radiodetermination service in the 5 GHz band) has been published in May 2011. The revision includes deletion of old text or information duplicating relevant provisions of the Radio Regulations and editorial updating of the text to reflect the recent studies conducted by ITU‑R.

– Report ITU-R M.2115 (Testing procedures for implementation of dynamic frequency selection) has been developed in response to the invites ITU-R 3 of Resolution 229. Report ITU-R M.2115-1 has been published in December 2009.

### 3.3.3 Review of Section 1 of Annex 1 and Annex 4 to Doc. 5A/703

WG 5A-4 did not see the need for detailed consideration of these texts at this WP 5A meeting since they had already been discussed at previous WP 5A meetings and encouraged all delegates to take a look at these texts and bring any remaining issues to the attention of the WP 5A chairman.

### 3.3.4 Review of the guide to the use of ITU-R texts related to the land mobile service

WG 5A-4 considered the current version of the guide and no issues of substance were raised. A few editorial issues were brought to the attention of the WP 5A chairman for inclusion into the overall document.

## 3.4 Objectives for the next WP 5A meeting

The objectives for the 9th WP 5A meeting related to the WG 5A-4 activities are:

– Conduct any relevant activity in response to the ITU-R questions assigned to WG 5A-4.

– Consider the appropriate actions under WG 5A-4 scope on issues possibly resulting from WRC-12.

– Continue the review of the propagation handbook based on input from SG 3.

– Further progress the development of the working document towards preliminary draft new Recommendation on BWA band planning to address the open issues with the intention to complete this work at the 9th meeting of WP 5A.

## 3.5 Conclusion

The Acting Chairman of WG 5A-4 would like to thank all the WG 5A-4 participants for their active involvement in the WG 5A-4 work and their cooperative spirit.

# 4 Working Group 5A-5 – New technologies (Chairman: Mr. Hitoshi Yoshino, Japan)

Working Group 5A5 met five times during the 8th meeting of ITU-R WP 5A from 8th to 17th November 2011. Around 50 delegates from Canada, China, Finland, France, Germany, Ghana, India, Iran, Italy, Japan, Kenya, Korea, The Netherlands, Russian Federation, Tanzania, USA, Alcatel-Lucent, Ericsson, Nokia Corporation, Nokia Siemens Networks and Robert Bosch participated in the meetings. The tasks assigned to WG 5A5 address technologies.

Thirty two input contributions and nine carried forward contributions were considered in WG 5A5, which were:

|  |  |
| --- | --- |
| – Cognitive radio systems (CRS)  (Q.241-1/5) | Documents [5A/656](http://www.itu.int/md/R07-WP5A-C-0656/en)(USA), [664](http://www.itu.int/md/R07-WP5A-C-0664/en)(HOL), [667](http://www.itu.int/md/R07-WP5A-C-0667/en), [670](http://www.itu.int/md/R07-WP5A-C-0670/en)(CHN), [680](http://www.itu.int/md/R07-WP5A-C-0680/en)(I, Ericsson, France Telecom Orange), [681](http://www.itu.int/md/R07-WP5A-C-0681/en)(FIN), [683](http://www.itu.int/md/R07-WP5A-C-0683/en), [684](http://www.itu.int/md/R07-WP5A-C-0684/en)(Nokia Corporation and Nokia Siemens Network), [685](http://www.itu.int/md/R07-WP5A-C-0685/en)(J), [703](http://www.itu.int/md/R07-WP5A-C-0703/en)(Annexes 21, 22) (WP 5A Chairman), [727](http://www.itu.int/md/R07-WP5A-C-0727/en)(WP 5D), [739](http://www.itu.int/md/R07-WP5A-C-0739/en)(USA), [749](http://www.itu.int/md/R07-WP5A-C-0749/en)(RUS), [758](http://www.itu.int/md/R07-WP5A-C-0758/en)(CHN), [761](http://www.itu.int/md/R07-WP5A-C-0761/en), [762](http://www.itu.int/md/R07-WP5A-C-0762/en)(J), [768](http://www.itu.int/md/R07-WP5A-C-0768/en)(HOL), [769](http://www.itu.int/md/R07-WP5A-C-0769/en), [770](http://www.itu.int/md/R07-WP5A-C-0770/en)(FIN), [771](http://www.itu.int/md/R07-WP5A-C-0771/en)(Nokia Corporation and Nokia Siemens Network), [772](http://www.itu.int/md/R07-WP5A-C-0772/en), 773(IND), [778](http://www.itu.int/md/R07-WP5A-C-0778/en), [779](http://www.itu.int/md/R07-WP5A-C-0779/en)(Nokia Corporation and Nokia Siemens Network) |
| – Intelligent transport system (ITS) (Q.205-4/5) | Documents [5A/703](http://www.itu.int/md/R07-WP5A-C-0703/en)(Annexes 16, 17) (WP 5A Chairman), [718R1](http://www.itu.int/md/R07-WP5A-C-0718/en)(Director BR: JTF for ITS Com.), [734](http://www.itu.int/md/R07-WP5A-C-0734/en)(WP 7D), [736](http://www.itu.int/md/R07-WP5A-C-0736/en), [737](http://www.itu.int/md/R07-WP5A-C-0737/en)(D), [750](http://www.itu.int/md/R07-WP5A-C-0750/en)(RUS), [763](http://www.itu.int/md/R07-WP5A-C-0763/en), [764](http://www.itu.int/md/R07-WP5A-C-0764/en)(J) |
| – Wireless Access Sensor Network  (WASN)  (Q.250/5) | Documents [5A/703](http://www.itu.int/md/R07-WP5A-C-0703/en)(Annexes 18, 19) (WP 5A Chairman), [711](http://www.itu.int/md/R07-WP5A-C-0711/en),  [712](http://www.itu.int/md/R07-WP5A-C-0712/en)(ITU-T JCA-IoT Convener), [732](http://www.itu.int/md/R07-WP5A-C-0732/en), [733](http://www.itu.int/md/R07-WP5A-C-0733/en) (KOR), [747](http://www.itu.int/md/R07-WP5A-C-0747/en)(IEEE), [759](http://www.itu.int/md/R07-WP5A-C-0759/en)(CHN), [765](http://www.itu.int/md/R07-WP5A-C-0765/en), [766](http://www.itu.int/md/R07-WP5A-C-0766/en)(J) |
| – Software Defined Radio (SDR) (Q.230-2/5) | Documents [5A/703](http://www.itu.int/md/R07-WP5A-C-0703/en)(Annex 20) (WP 5A Chairman), [728](http://www.itu.int/md/R07-WP5A-C-0728/en)(WP 5D), [745](http://www.itu.int/md/R07-WP5A-C-0745/en)(USA), [752](http://www.itu.int/md/R07-WP5A-C-0752/en)(Ericsson) |

Working Group 5A5 established the three Sub-working Groups (SWGs) to facilitate its work:

|  |  |
| --- | --- |
| **SWG** (**Chairman**) | **Terms of reference** |
| SWG 5A-5-1 –CRS: Cognitive Radio System  (Mr. Hitoshi Yoshino, Japan) | * Develop a draft new Report ITU-R [LMS.CRS1] – The introduction to cognitive radio systems in the land mobile service * Develop a working document toward a preliminary draft new Report ITU-R [LMS.CRS2] – Cognitive radio systems [(CRS) applications] in the land mobile service |
| SWG 5A-5-2 – ITS: Intelligent Transport System  (Mr. Satoshi Oyama, Japan) | * Develop a preliminary draft new Report ITU-R M.[LMS.AITS] on advanced intelligent transport system (ITS) radiocommunications * Develop a preliminary draft revision of Recommendation ITU-R M.1452-1 – Millimetre wave vehicular collision avoidance radars and radiocommunication systems for intelligent transport system applications * Develop a note to the director of BR – Terms of reference of ITS communications collaboration |
| SWG 5A-5-3 – WASN: Wireless access sensor network  (Ms. Gabrielle Owen, The Netherlands) | * Develop a working document towards PDN Report ITU‑R M.[LMS.WASN Study] – System design guidelines for wide area sensor and/or actuator network (WASN) systems * Develop a PDN Recommendation ITU-R M.[LMS.WASN] – Objectives, characteristics and functional requirements of wide-area sensor and/or actuator network (WASN) systems * Develop a liaison statement to ITU-R WP 5D, ITU-T JCA-IoT standard convener on IoT standards roadmap * Develop a liaison statement to External Organizations on “wide area sensor and/or actuator network (WASN) systems |

The other issues were directly considered by the meetings of WG 5A5.

SWG 5A5-1 on CRS, SWG 5A5-2 on ITS and SWG 5A5-3 on WASN met fifteen, three and five times, respectively, during the 8th meeting of WP 5A.

## 4.1 Cognitive radio systems (CRS) in the land mobile service

Working Group 5A5 considered fourteen input contributions and nine carried forward documents. Based on the input contributions and the carrier forward documents, WG 5A5 completed a draft new Report ITU-R [LMS.CRS1] *the introduction to cognitive radio systems in the land mobile service* (Document 5A/TEMP/334R1). WG5A5 further developed the working document towards a preliminary draft new Reports ITU-R [LMS.CRS2] (Document 5A/TEMP/348), which has been carried forward to the 9th meeting of WP 5A for further development.

Working Group 5A5 invites members of ITU-R to propose materials/modifications/refinements to the working document of CRS report [LMS.CRS2] through their input contributions to the next meeting.

## 4.2 Intelligent transport system (ITS)

Working Group 5A5 considered seven input contributions and completed two documents; (1) Preliminary draft new Report ITU-R M.[LMS.AITS] on advanced intelligent transport systems (ITS) radiocommunications (Document 5A/TEMP/331R1) and (2) Preliminary draft revision of Recommendation ITU-R M.1452-1 - Millimetre wave vehicular collision avoidance radars and radiocommunication systems for intelligent transport system applications (Document 5A/TEMP/332R1).

Working Group 5A5 developed a draft Note to Director BR - Terms of reference of intelligent transport systems communications collaboration (Document 5A/TEMP/333R1).

## 4.3 Wireless access sensor network (WASN) system

Working Group 5A5 considered eight input contributions and completed two documents; a PDN Report ITU-R M.[LMS.WASN Study] and the working document towards a PDN Recommendation ITU‑R M.[LMS.WASN] on mobile wireless access systems providing communications to a large number of ubiquitous sensors and/or actuators scattered over wide areas in the land mobile service. (Documents 5A/TEMP/329R2 and 335R1).

Working Group 5A5 also developed a liaison statement to ITU-T JCA-IoT Convener on IOT standards roadmap and a liaison statement to External organizations on "wide-area sensor and/or actuator network (WASN) systems" (Documents 5A/TEMP/336R1 and 337R1).

## 4.4 Software Defined Radio (SDR)

Working Group 5A5 received two input contributions on the revision of Report ITU-R M.2117 and decided to carried forward the input contributions (Documents [5A/745](http://www.itu.int/md/R07-WP5A-C-0745/en) and [752](http://www.itu.int/md/R07-WP5A-C-0752/en)) together with the working document towards a preliminary draft revision of Report ITU-R M.2117 (Document [5A/703](http://www.itu.int/md/R07-WP5A-C-0703/en) (Annex 20)) to the next WP 5A meeting in May 2012. WG 5A5 also developed a liaison statement to WP 5D on the revision of SDR Report (Document 5A/TEMP/353R1).

## 4.5 Review of ITU-R Questions assigned to WG5A5

Working Group 5A5 received two contributions on the revision of Question ITU-R 241-1/5 (Documents [5A/749](http://www.itu.int/md/R07-WP5A-C-0749/en) and [761](http://www.itu.int/md/R07-WP5A-C-0761/en)) on CRS. Based on the contributions, Working Group 5A5 developed the revision of the Question 241-1/5. Working Group 5A5 also reviewed existing other Questions assigned to WG 5A5 and developed a text for the revision of Question ITU-R 205-4/5(ITS), 230‑2/5(SDR) and 250/5(WASN) in addition to the revision of Question 241-1/5(CRS).

## 4.6 Future work

At the next meeting of WP 5A, WG 5A5 plans to further develop the working documents towards a PDN Report [LMS.CRS2] on cognitive radio systems in the land mobile service in accordance with Question ITU-R 241-1/5.

WG 5A5 continues the development of a working document towards a preliminary draft revision of Report ITU-R M.2117 on SDR based on the carried forward documents and new contributions to the next meeting in accordance with Question ITU-R 230-2/5.

Working Group 5A5 also continues the development of a working document towards a preliminary draft new Recommendation and/or Report on intelligent transport system (ITS) radiocommunications in accordance with Question ITU-R 205-4/5.

Working Group 5A5 further continues the development of a working document towards a preliminary draft new Recommendation and/or Report on wireless access sensor network, including machine-to-machine communication network in the land mobile service in accordance with Question ITU‑R 250/5.

Administrations and Sector Members in addition to external organizations are encouraged to provide materials for the working documents.

Finally the WG 5A5 Chairman would like to thank Sub-Working Group Chairs Mr Satoshi Oyama and Ms Gabrielle Owen for their excellent chairmanship and all participants for their contribution to work of the group.

Appendix 1 to Annex 3

**Workplan on broadband applications of Public Protection   
and Disaster Relief (PPDR)**[[1]](#footnote-1)

|  |  |
| --- | --- |
| **Title** | Guidance for Future Work on Broadband Applications of PPDR |
| **Identifier** | PPDR-BB |
| **Document type** | Recommendation(s) and/or Report(s) |
| **ITU-R WP 5A Lead Group** | WG2 Systems and Standards |
| **Working Group Chair** | Lang Baozhen |
| **Drafting Group Chair** | Amy L. Sanders |
| **Focus for scope and work** | The scope of this work is consideration of the demand for broadband applications for PPDR and guidance for regulators, manufacturers, and end users. The work is expected to result in the development of a Recommendation(s) and/or Report(s) on   1. Demand for broadband PPDR applications; 2. Methods to meet the demand, focussing on technical requirements, spectrum requirements, and operational scenarios for broadband PPDR such as dedicated networks, shared networks, etc.; 3. Guidance for regulators, PPDR operators, and manufacturers.   Liaison with other ITU-R concerned groups and external organizations will be required.  This workplan is subject to change based on contributions received. |
| **Related documents** | Resolution ITU-R 53 (RA-07)  Resolution ITU-R 55 (RA-07)  Resolution ITU-R 644 (Rev.WRC-07)  Resolution ITU-R 646 (WRC-03)  Resolution ITU-R 647 (WRC-07)  Draft new Recommendation ITU-R M.[LMS.PPDR.UHF TECH]  Draft new Report ITU-R M.[LMS.PPDR.UHF CHANNELS]  Draft new Recommendation ITU-R M.[LMS.PPDR.UHF] “Frequency arrangements for public protection and disaster relief radiocommunication systems in UHF bands in accordance with Resolution 646 (WRC 03)”.  Report ITU-R M.2033 – “Radiocommunication objectives and requirements for public protection and disaster relief”.  Report ITU-R M.2014 – “Digital land mobile systems for dispatch traffic”.  Comment: Other related documents to be added in the process as appropriate. |
| **Milestones** | **Meeting No.  9 (May 2012)**   1. Review existing Recommendations and Reports related to PPDR and under the purview of WP 5A to identify areas needing revision to reflect the development of broadband applications. 2. Consider whether to revise existing documents or develop companion documents focused on broadband applications. 3. Identify study areas under the scope of work outlined above. 4. Prepare liaisons to other involved WPs and external organizations as appropriate taking into account scheduled dates for meetings. 5. Revise workplan as appropriate.   **Meeting No. 10  (November 2012)**   1. Consider input contributions related to the scope of work. 2. Initiate development of Recommendation(s) and/or Report(s) as appropriate. 3. Receive liaisons from other involved WPs. Liaise as required with other involved WPs and external organizations. 4. Revise workplan as appropriate.   **Meeting No. 11 (June 2013)**   1. Consider input contributions related to the scope of work. 2. Progress development of Recommendation(s) and/or Report(s) as appropriate. 3. Receive liaisons from other involved WPs. Liaise as required with other involved WPs and external organizations. 4. Revise workplan as appropriate.   **Meeting No. 12 (November 2013)**   1. Consider input contributions related to the scope of work. 2. Complete development of Recommendation(s) and/or Report(s) as appropriate. |

Appendix 2 to Annex 3

Terms of Reference – Joint Correspondence Group [5A/5C JCG]

**Handbook on Guidance for bilateral frequency use discussions on fixed/land mobile systems in the frequency range 29.7 MHz–[39.5 GHz]**

## The Terms of Reference Joint Correspondence Group [5A/5C JCG] are:

1) to work in accordance with § 2.16 of Resolution ITU-R 1-5;

2) to review the draft structure of the handbook and review/consider the input contributions to WPs 5A and 5C that have been submitted on the matter of this handbook for detail analysis;

3) to consider input contributions to JCG WPs 5A/5C on the matter of this handbook for detail analysis;

4) to identify what information on systems in the land mobile and fixed services needs to be included in the Handbook on “Guidance for bilateral frequency use discussions on fixed/land mobile systems in the frequency range 29.7 MHz–[39.5 GHz]”;

5) to identify what kind of information on radiowave propagation needs to be included in the handbook;

6) provide a report to WP 5A and WP 5C on the progress of its work to each subsequent meeting.

The Joint Correspondence Group shall continue the work initiated following the sixth meeting of WP 5A/5C and should submit 4 weeks before the each subsequent WPs 5A/5C meeting their report in relation to the handbook, including liaison activity for the consideration of WP 5A/5C.

**Chair of Correspondence Group**: Alexander Klyucharev (The Russian Federation)

**E-mail**: [alexander.klyucharev@ties.itu.int](mailto:alexander.klyucharev@ties.itu.int)

1. The information contained in this document is temporary in nature and does not necessarily represent material that has been agreed by the group concerned. Since the material may be subject to revision during the meeting, caution should be exercised in using the document for the development of any further contribution on the subject. [↑](#footnote-ref-1)