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| **Radiocommunication Study Groups** |  |
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|  | **Document 5A/79-E** |
| **28 June 2012** |
| **English only** |
| Chairman, Working Party 5A |
| report on the NINTH meeting of working party 5a |
| (Geneva, 22-31 May 2011) |

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Annexes

[1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N01!MSW-E) Working Party 5A management

[2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!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-0079!N03!MSW-E) Consolidation of reports from the Working Groups of Working Party 5A

[4](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N04!MSW-E) Working document toward draft CPM text - Agenda item 1.4
(Source: Documents 5A/TEMP/23)

[5](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N05!MSW-E) Workplan and milestones for WRC-15 Agenda item1.4 (Source: Doc. 5A/TEMP/1)

[6](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N06!MSW-E) Draft outline for CPM text for Agenda item 1.3 (Source: Doc. 5A/TEMP/19)

[7](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N07!MSW-E) Work plan for WRC-15 Agenda item 1.3 (Source: Doc. 5A/TEMP/11R1)

[8](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N08!MSW-E) Draft outline of CPM text for WRC-15 Agenda Item 1.18
(Source: [Annex 9](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5B-C-0062!N09!MSW-E) to [Document 5B/62](http://www.itu.int/md/R12-WP5B-C-0062/en))

[9](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N09!MSW-E) Work Plan for WRC-15 Agenda item 1.18 (Source: Doc. 5A/TEMP/31)

[10](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N10!MSW-E) Preliminary draft new Recommendation ITU-R M.[VARICODE] - Telegraphic alphabet for data communication by phase shift keying at 31 baud in the amateur and amateur-satellite services (Source: Doc. 5A/TEMP/5)

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[11](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N11!MSW-E) Working document toward a preliminary draft new Report ITU-R M.[AMATEUR] - Compatibility analysis of possible amateur systems with fixed, land mobile and maritime mobile services in the frequency band 5 250-5 450 kHz
(Source: Doc. 5A/TEMP/27)

[12](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N12!MSW-E) Working document towards a preliminary draft new Report ITU-R M.[HF‑SPECTRAL OCCUPANCY] - Spectral occupancy of fixed and mobile allocations within the band 5 250-5 450 kHz (Source: Doc. 5A/TEMP/22)

[13](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N13!MSW-E) Preliminary draft revision to ITU-R Handbook for amateur and amateur-satellite services (Source: Doc. 5A/TEMP/28)

[14](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N14!MSW-E) Working document towards a preliminary draft new Report ITU-R [LMS.ATG] - Systems for public mobile communications with aircraft (Source: Doc. 5A/TEMP/8)

[15](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N15!MSW-E) Working document to a preliminary draft revision of Recommendation ITU-R M.1801-1 - Radio interface standards for broadband wireless access systems, including mobile and nomadic applications, in the mobile service operating below 6 GHz (Source: Doc. 5A/TEMP/9)

[16](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N16!MSW-E) Preliminary draft revision of Report ITU-R M.2014-1 - Digital land mobile systems for dispatch traffic (Source: Doc. 5A/TEMP/14)

[17](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N17!MSW-E) Working Document toward a Preliminary Draft Revision of Recommendation ITU-R M.2009 - Radio interface standards for use by public protection and disaster relief operations in some parts of the UHF band in accordance with Resolution 646 (Rev.WRC-12) (Source: Doc. 5A/TEMP/18)

[18](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N18!MSW-E) Working document towards a preliminary draft revision of Recommendation ITU-R M.2015 - Frequency arrangements for public protection and disaster relief radiocommunication systems in UHF bands in accordance with Resolution 646 (Rev.WRC-12) (Source: Doc. 5A/TEMP/16 )

[19](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N19!MSW-E) Working document towards a preliminary draft new Recommendation ITU-R M.[LMS.FA] - General guidelines for the planning of frequency block arrangements in large contiguous bandwidths for broadband applications in the mobile service (Source: Doc. 5A/TEMP/21)

[20](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N20!MSW-E) Working document towards a preliminary draft revision of Report ITU-R M.2116-1 - Characteristics of broadband wireless access systems operating in the land mobile service for use in sharing studies (Source: Doc. 5A/TEMP/10)

[21](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N21!MSW-E) Working document towards a preliminary draft revision of Report ITU-R M.2228 - Advanced intelligent transport systems (ITS) radiocommunications
(Source: Doc. 5A/TEMP/32)

[22](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N22!MSW-E) Working document towards a preliminary draft new Recommendation ITU-R M.[AUTO] - Systems characteristics of automotive radars operating in the frequency band 76-81 GHz for intelligent transport systems applications
(Source: Doc. 5A/TEMP/33)

[23](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N23!MSW-E) Working document towards a preliminary draft revision of Report ITU-R M.2117 - Software-defined radio in the land mobile, amateur and amateur satellite services (Source: Doc. 5A/TEMP/41)

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[24](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N24!MSW-E) Working document towards a preliminary draft new Report ITU-R [LMS.CRS2] - [Cognitive radio systems [(CRS) applications] in the land mobile service] (Source: Doc. 5A/TEMP/46)

[25](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N25!MSW-E) Working document towards a preliminary draft revised/new Recommendation ITU-R M.[5A/VOC] - Vocabulary of terms for the land mobile service (Source: Doc. 5A/TEMP/34R1)

[26](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N26!MSW-E) List of output documents

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

[Annex 14](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0513!N14!MSW-E) to [Doc. 5A/513](http://www.itu.int/md/R07-WP5A-C-0513/en) (Study Period 2008-2012): Working document towards a preliminary draft new Report ITU‑R M.[5.9 GHz ITS] – Proposed arrangements for 5.9 GHz intelligent transport systems in Australia.

**Management documents referred to in the Report:**

List of input documents: [Doc. 5A/68(Rev.1)](http://www.itu.int/md/R12-WP5A-C-0068)

Final list of participants: [Doc. 5A/78(Rev.1)](http://www.itu.int/md/R12-WP5A-C-0078)

# 1 Introduction

Working Party 5A (WP 5A) held its ninth meeting from 22-31 May 2012 in Geneva, chaired by José Costa (Canada). The meeting participants (see list in [Doc. 5A/78(Rev.1)](http://www.itu.int/md/R12-WP5A-C-0078)) included 153 participants from 32 countries representing 28 administrations, 5 registered operating agencies, 9 scientific or industrial organizations, 5 regional and other international organizations, one intergovernmental organization operating satellite systems, one other entity dealing with telecommunications, and the BR. WP 5A held three plenary sessions during the meeting period (on 22, 25, and 31 May 2012).

The meeting dealt with 86 input documents (see list in [Doc. 5A/68(Rev.1)](http://www.itu.int/md/R12-WP5A-C-0068)) and upon their consideration the meeting prepared 49 output temporary documents (see list in [Annex 26](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N26!MSW-E) to [Doc. 5A/79](http://www.itu.int/md/R12-WP5A-C-0079)). [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!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 Chairman’s Report of the eighth meeting of WP 5A ([Doc. 5A/788](http://www.itu.int/md/R07-WP5A-C-0788/en)) was adopted.

The structure of WP 5A for this meeting was adopted as presented in [Doc. 5A/ADM/1](http://www.itu.int/md/R12-WP5A-ADM-0001/en) (supported by Documents [5A/25](http://www.itu.int/md/R12-WP5A-C-0025), [5A/33](http://www.itu.int/md/R12-WP5A-C-0033), and [5A/58](http://www.itu.int/md/R12-WP5A-C-0058)). The Chairman informed the meeting that Ken Pulfer (Canada) and Bruno Espinosa (France), the former Chairmen of WG 5A-1 and WG 5A-4, respectively, would be unable to continue participating in WP 5A. The Chairman thanked them for their support in WP 5A over the years and asked the Administrations of Canada and France, respectively, to convey the thanks of WP 5A to them. The Chairman then thanked Brennan Price (USA) and Michael Kraemer (Germany) for agreeing to chair WG 5A-1 and WG 5A-4, respectively. The Chairman pointed out that due to the increased work on Public Protection and Disaster Relief (PPDR), WG 5A-3 was being reconstituted chaired by Amy Sanders (USA). The references to Resolutions, Recommendations, and Questions that guide the work of WP 5A had been updated in the table with the structure of WP 5A based on the results of RA-12 and WRC-12 (see Section 2.2 of [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N01!MSW-E)). With respect to the organization of the work on Agenda item 1.18 by WPs 5A and 5B, the Chairman reported that WP 5B had already agreed with the proposal in [Doc. 5A/33](http://www.itu.int/md/R12-WP5A-C-0033), but rather than forming a formal joint group, the meetings of the sub-working groups from WP 5A and WP 5B would be collocated and would report to WP 5A and/or WP 5B as required. This arrangement was also agreed by WP 5A.

The Chairman asked the meeting participants to review the list of contacts that appears in [Doc. 5A/ADM/1](http://www.itu.int/md/R12-WP5A-ADM-0001/en) and inform him of any necessary changes (the final list appears in Section 4 of [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N01!MSW-E) 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 would be used for all liaison statements to external organizations on those topics and the e-mail distribution lists would be generated automatically from it.

The Chairman presented a brief report on the results of the Study Group 5 meeting ([Doc. 5A/39](http://www.itu.int/md/R12-WP5A-C-0039)) and noted that the draft revision of Recommendation ITU-R [M.1452-1](http://www.itu.int/rec/R-REC-M.1452) was also approved as indicated in Administrative Circular [CACE/574](http://www.itu.int/md/R00-CACE-CIR-0574/en).

The Chairman of Study Group 5 presented the results of RA-12, WRC-12 and CPM15-1 (Docs. [5A/7](http://www.itu.int/md/R12-WP5A-C-0007/en), [5A/15](http://www.itu.int/md/R12-WP5A-C-0015/en), [5A/16](http://www.itu.int/md/R12-WP5A-C-0016), and [CA/201](http://www.itu.int/md/R00-CA-CIR-0201/en)). It was noted that CPM-15-1 identified WP 5A as a responsible group or concerned group for a number of WRC‑15 Agenda items (see [CA/201](http://www.itu.int/md/R00-CA-CIR-0201/en)) and [Doc. 5A/7](http://www.itu.int/md/R12-WP5A-C-0007/en) provides a summary of WRC-15 Agenda items for which Working Parties in Study Group 5 are a responsible or concerned group, see Section 3 in [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N01!MSW-E).

The Liaison Rapporteur on [ITS Communication Standards Collaboration](http://www.itu.int/en/ITU-T/extcoop/cits/Pages/default.aspx), Paul Najarian, presented his report in [Doc. 5A/48](http://www.itu.int/md/R12-WP5A-C-0048/en).

WP 5A decided to send a liaison statement to WP 4C (Appendix 1 to Annex 2 to [Doc. 5A/788](http://www.itu.int/md/R07-WP5A-C-0788)) that was approved at the eighth meeting and was held in the Chairman’s Report ([Doc. 5A/788](http://www.itu.int/md/R07-WP5A-C-0788)) pending the outcome of WRC-12. It was noted that all the document references in the liaison statement were still valid.

[Doc. 5A/14](http://www.itu.int/md/R12-WP5A-C-0014/en) from the Chairmen of Study Groups 4 and 5 was presented by the Chairman of Study Group 5 and provides a procedure for the development and updating documents that are a joint responsibility of the two study groups. It was noted that within the texts under the responsibility of WP 5A the documents which have a joint responsibility with Study Group 4 include Recommendations ITU-R [M.1039-3](http://www.itu.int/rec/R-REC-M.1039/en) and ITU-R [M.1454](http://www.itu.int/rec/R-REC-M.1454/en) and Report ITU-R [S.2199](http://www.itu.int/pub/R-REP-S.2199).

Other reports presented by the Liaison Rapporteurs were noted, including on [Disaster Relief](http://www.itu.int/ITU-R/index.asp?category=information&link=emergency&lang=en) by Amy Sanders ([Doc. 5A/46](http://www.itu.int/md/R12-WP5A-C-0046/en)), on certain countries in Region 2 ([Doc. 5A/59(Rev.1)](http://www.itu.int/md/R12-WP5A-C-0059/en)) by Brennan Price, on certain countries in Region 1 ([Doc. 5A/69](http://www.itu.int/md/R12-WP5A-C-0069/en)) by Gabrielle Owen, and WWRF ([Doc. 5A/66](http://www.itu.int/md/R12-WP5A-C-0066/en)) and on certain countries in Region 3 ([Doc. 5A/70](http://www.itu.int/md/R12-WP5A-C-0070/en)) by Hitoshi Yoshino.

At the opening Plenary the Chairman also drew the attention of the meeting to the WP 5A texts that are listed in Section 1 of Annex 1 to [Doc. 5A/788](http://www.itu.int/md/R07-WP5A-C-0788) and the [Guide to the use of ITU-R texts related to the land mobile service](http://www.itu.int/oth/R0A06000001/en), asking each working group to review the texts assigned to them.

In conjunction with the working party meetings, WP 5A, WP 5B and WP 5C held a [workshop](http://www.itu.int/ITU-R/index.asp?category=study-groups&rlink=workshop-wp5abc-wrc15&lang=en)[[1]](#footnote-1) on 23 May 2012 to discuss the preparations for WRC-15 and to provide a high-level view of the WRC-15 Agenda items that the Study Group 5 working parties are responsible for or to which they are contributing. The [programme](http://www.itu.int/ITU-R/study-groups/docs/workshop-wp5abc-wrc15/WorkshopProgramme.pdf), [presentations](http://www.itu.int/ITU-R/index.asp?category=study-groups&rlink=workshop-wp5abc-wrc15-info&lang=en), [speaker biographies](http://www.itu.int/ITU-R/index.asp?category=study-groups&rlink=workshop-wp5abc-wrc15-info&lang=en) and the recorded webcast are available [online](http://www.itu.int/ITU-R/index.asp?category=study-groups&rlink=workshop-wp5abc-wrc15&lang=en). The workshop proved to be useful to bring everyone up-to-speed and on a common ground on the relevant WRC-15 Agenda items to enable more productive work in the preparations for WRC-15.

# 2 Objectives and work programme for the ninth meeting of WP 5A

The objectives for the meeting were adopted as set forth in the Chairman’s Report of the eighth meeting of WP 5A (Section 4 of [Doc. 5A/788](http://www.itu.int/md/R07-WP5A-C-0788/en)) noting that need to consider also the proposals in the input contributions for the ninth meeting.

With regard to the update of documents that are the joint responsibility of WPs 5A and 5C, the two working parties held a joint meeting; and [Section 6.3.1](#s361) summarizes the results of the joint meeting that considered the development of the cross-border coordination handbook and a proposed update of [Rec. ITU-R F.1336-3](http://www.itu.int/rec/R-REC-F.1336/en). Actions regarding future 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 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). It was noted that Document [5A/793](http://www.itu.int/md/R07-WP5A-C-0793) was withdrawn. It was also noted that although Doc. [5B/10](http://www.itu.int/md/R12-WP5B-C-0010/en) had not been distributed to WP 5A, the Chairmen of WPs 5A, 5B, 5C and 5D agreed to develop a joint liaison statement to ITU-T.

Several liaison statements from WP 4C (Docs. 5A/[71](http://www.itu.int/md/R12-WP5A-C-0071/en), [72](http://www.itu.int/md/R12-WP5A-C-0072/en), [73](http://www.itu.int/md/R12-WP5A-C-0073/en), [74](http://www.itu.int/md/R12-WP5A-C-0074/en), and [75](http://www.itu.int/md/R12-WP5A-C-0075/en)) and WP 5C (Docs. [76](http://www.itu.int/md/R12-WP5A-C-0076/en) and [77](http://www.itu.int/md/R12-WP5A-C-0077/en)) arrived during the meeting and were assigned to the relevant working groups.

The working groups prepared revised/new Recommendations, Reports, 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=R12-WP5A-C-0079!N03!MSW-E). The texts proposed by these Groups in TEMP documents ([Annex 26](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N26!MSW-E)) were considered by WP 5A and are either annexed to this Report for further work to be considered at future meetings of or were approved as liaison statements to other Groups ([Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N02!MSW-E)).

TABLE 1

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

NOTE – Docs. 45 & 795-788 from the Study Period 2008-2012 are posted at <http://www.itu.int/md/R07-WP5A-C/en> and the documents from the Study Period 2012-2015 are posted at <http://www.itu.int/md/R12-WP5A-C/en>

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| **Working Party 5A (Chairman: José Costa, Canada)** |
| **Reports** | [788](http://www.itu.int/md/R07-WP5A-C-0788) (Chairman, WP 5A); [7](http://www.itu.int/md/R12-WP5A-C-0007/en), [15](http://www.itu.int/md/R12-WP5A-C-0015/en), [16](http://www.itu.int/md/R12-WP5A-C-0016) (Chairman, SG 5); [39](http://www.itu.int/md/R12-WP5A-C-0039) (Chairman, WP 5A); [46](http://www.itu.int/md/R12-WP5A-C-0046/en) (Disaster Relief Liaison Rapporteur); [59](http://www.itu.int/md/R12-WP5A-C-0059/en) (Liaison Rapporteur #2); [68](http://www.itu.int/md/R12-WP5A-C-0068/en) (List of Documents), [69](http://www.itu.int/md/R12-WP5A-C-0069/en) (Liaison Rapporteur #1), [70](http://www.itu.int/md/R12-WP5A-C-0070/en) (Liaison Rapporteur #3) |
| **General** | [45](http://www.itu.int/md/R07-WP5A-C-0045) [Annex 11](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0045!N11!MSW-E) (WP 5A); [1R1](http://www.itu.int/md/R12-WP5A-C-0001/en) (Documents carried over); [3](http://www.itu.int/md/R12-WP5A-C-0003/en), [4](http://www.itu.int/md/R12-WP5A-C-0004/en), [5](http://www.itu.int/md/R12-WP5A-C-0005/en) (Questions from other SGs); [14](http://www.itu.int/md/R12-WP5A-C-0014/en) (Chairmen, SG 4 and SG 5); [38](http://www.itu.int/md/R12-WP5A-C-0038) (Japan) |
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| **Working Group 1: Amateur Services (Chairman: Brennan Price, USA)** |
| **New Rec. M.[VARICODE]** | [788](http://www.itu.int/md/R07-WP5A-C-0788/en) [Annex 4](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0788!N04!MSW-E) (WP 5A); [23](http://www.itu.int/md/R12-WP5A-C-0023) (USA) |
| **AI 1.4 (~5300 kHz)** | [17](http://www.itu.int/md/R12-WP5A-C-0017), [18](http://www.itu.int/md/R12-WP5A-C-0018) (Canada); [30](http://www.itu.int/md/R12-WP5A-C-0030), [31](http://www.itu.int/md/R12-WP5A-C-0031) (USA); [43](http://www.itu.int/md/R12-WP5A-C-0043) (Russian Federation); [57](http://www.itu.int/md/R12-WP5A-C-0057/en) (China); [77](http://www.itu.int/md/R12-WP5A-C-0077/en) (WP 5C) |
| **Amateur Handbook** | [22](http://www.itu.int/md/R12-WP5A-C-0022) (USA) |
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| **Working Group 2: Systems and standards (Chairman: Lang Baozhen, China)** |
| **Wireless home networks** | [790](http://www.itu.int/md/R07-WP5A-C-0790), [794](http://www.itu.int/md/R07-WP5A-C-0794), [40](http://www.itu.int/md/R12-WP5A-C-0040/en) (ITU-T SG 15) |
| **Question** [**37**](http://www.itu.int/pub/R-QUE-SG05.37) **(except PPDR)** | [792](http://www.itu.int/md/R07-WP5A-C-0792) (ITU-T SG 16); [2](http://www.itu.int/md/R12-WP5A-C-0002/en) (ITU-T FG AVA) |
| **Update of Rec. ITU-R M.1801** | [12R1](http://www.itu.int/md/R12-WP5A-C-0012/en)-Attachment 2 (ATIS) |
| **Update of Rep. ITU-R M.1051** | [788](http://www.itu.int/md/R07-WP5A-C-0788/en) [Annex 7](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0788!N07!MSW-E) (WP 5A); [52](http://www.itu.int/md/R12-WP5A-C-0052/en) (China) |
| **Res. ITU-R 60** | [5B/10](http://www.itu.int/md/R12-WP5B-C-0010/en) (ITU-T SG 5) |
| **AI 9.1.6 Definitions** |  |
|  |  |
| **Working Group 3: PPDR (Chairman: Amy Sanders, USA)** |
| **PPDR Channels** | [788](http://www.itu.int/md/R07-WP5A-C-0788/en) [Annex 6](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0788!N06!MSW-E) (WP 5A); [9](http://www.itu.int/md/R12-WP5A-C-0009/en) (3GPP2); [20](http://www.itu.int/md/R12-WP5A-C-0020) (ETSI); [47](http://www.itu.int/md/R12-WP5A-C-0047/en) (3GPP); [51](http://www.itu.int/md/R12-WP5A-C-0051/en) (Australia) |
| **Update of Rec. ITU-R M.2009** | [56](http://www.itu.int/md/R12-WP5A-C-0056/en) (China) |
| **Update of Rec. ITU-R M.2015** | [24](http://www.itu.int/md/R12-WP5A-C-0024/en) (USA) |
| **Update of Rep. ITU-R M.2014** | [788](http://www.itu.int/md/R07-WP5A-C-0788/en) [Annex 5](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0788!N05!MSW-E) (WP 5A); [10](http://www.itu.int/md/R12-WP5A-C-0010/en) (3GPP2); [21](http://www.itu.int/md/R12-WP5A-C-0021/en) (ETSI) |
| **AI 1.3 (PPDR)** | [25](http://www.itu.int/md/R12-WP5A-C-0025/en) (USA); [50](http://www.itu.int/md/R12-WP5A-C-0050/en) (Korea); [58](http://www.itu.int/md/R12-WP5A-C-0058/en) (Motorola Solutions) |
|  |  |
| **Working Group 4: Interference and sharing (Chairman: Michael Kraemer, Germany)** |
| **AIs 1.1, 1.2** | [6](http://www.itu.int/md/R12-WP5A-C-0006/en) (Chairman, JTG 4-5-6-7); [32](http://www.itu.int/md/R12-WP5A-C-0032/en) (USA) |
| **Update of Rep. ITU-R M.2116** | [12R1](http://www.itu.int/md/R12-WP5A-C-0012/en)-Attachment 1 (ATIS) |
| **EMF** | [13](http://www.itu.int/md/R12-WP5A-C-0013/en) (ITU-T SG 5); |
| **BWA band planning** | [788](http://www.itu.int/md/R07-WP5A-C-0788/en) [Annex 8](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0788!N08!MSW-E) (WP 5A); [19](http://www.itu.int/md/R12-WP5A-C-0019/en) (Canada); [27](http://www.itu.int/md/R12-WP5A-C-0027/en) (USA) |
| **AI 1.15 (Res.358)** | [29](http://www.itu.int/md/R12-WP5A-C-0029/en) (USA) |
| **ENG – Res. 954** | [786](http://www.itu.int/md/R07-WP5A-C-0786/en) (WP 5C);  |
| **Cross-border handbook** | [11](http://www.itu.int/md/R12-WP5A-C-0011/en) (Chairman, JCG 5A/5C); [42](http://www.itu.int/md/R12-WP5A-C-0042/en) (Russian Federation) |
| **Separation distances** | [791](http://www.itu.int/md/R07-WP5A-C-0791/en) (WP 3K) |
| **IMT matters** | [789](http://www.itu.int/md/R07-WP5A-C-0789/en) (WP 5B) |
| **AI 1.9.2 – Res. 758** | [73](http://www.itu.int/md/R12-WP5A-C-0073/en) (WP 4C) |
| **AI 1.10 – Res. 234** | [74](http://www.itu.int/md/R12-WP5A-C-0074/en), [75](http://www.itu.int/md/R12-WP5A-C-0075/en) (WP 4C) |
| **AI 9.1.1 – Res. 205** | [71](http://www.itu.int/md/R12-WP5A-C-0071/en) (WP 4C) |
| **MSS emissions** | [72](http://www.itu.int/md/R12-WP5A-C-0072/en) (WP 4C) |
|  |  |
| **Working Group 5: New technologies (Chairman: Hitoshi Yoshino, Japan)** |
| **CRS Report** | [788](http://www.itu.int/md/R07-WP5A-C-0788) [Annex 9](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0788!N09!MSW-E) (WP 5A); [26](http://www.itu.int/md/R12-WP5A-C-0026), [34](http://www.itu.int/md/R12-WP5A-C-0034/en) (USA); [35](http://www.itu.int/md/R12-WP5A-C-0035/en) (Japan); [41](http://www.itu.int/md/R12-WP5A-C-0041/en) (IEEE); [66](http://www.itu.int/md/R12-WP5A-C-0066/en) (WWRF Liaison Rapporteur); [49](http://www.itu.int/md/R12-WP5A-C-0049/en) (Korea); [53](http://www.itu.int/md/R12-WP5A-C-0053/en), [54](http://www.itu.int/md/R12-WP5A-C-0054/en), [55](http://www.itu.int/md/R12-WP5A-C-0055/en) (China); [60](http://www.itu.int/md/R12-WP5A-C-0060/en)(Finland); [61](http://www.itu.int/md/R12-WP5A-C-0061/en) (The Netherlands); [62](http://www.itu.int/md/R12-WP5A-C-0062/en) (Telecom Italia, France Telecom Orange); [63](http://www.itu.int/md/R12-WP5A-C-0063/en)*,* [64](http://www.itu.int/md/R12-WP5A-C-0064/en)*,* [65](http://www.itu.int/md/R12-WP5A-C-0065/en) (Nokia, NSN, VTT) |
| **Update of M.2117 (SDR)** | [703](http://www.itu.int/md/R07-WP5A-C-0703) [Annex 20](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0703!N20!MSW-E) (WP 5A); [28](http://www.itu.int/md/R12-WP5A-C-0028/en) (USA); [45](http://www.itu.int/md/R12-WP5A-C-0045/en) (Ericsson) |
| **Sensor networks** | [795](http://www.itu.int/md/R07-WP5A-C-0795), [8](http://www.itu.int/md/R12-WP5A-C-0008/en) (ISO) |
| **ITS** | [513](http://www.itu.int/md/R07-WP5A-C-0513) [Annex 14](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0513!N14!MSW-E) (WP 5A); [37](http://www.itu.int/md/R12-WP5A-C-0037/en) (Japan); [48](http://www.itu.int/md/R12-WP5A-C-0048/en) (Liaison Rapporteur on ITS communication standards collaboration); |
| **AI 1.18** | [33](http://www.itu.int/md/R12-WP5A-C-0033/en) (USA); [36](http://www.itu.int/md/R12-WP5A-C-0036/en) (Japan); [44](http://www.itu.int/md/R12-WP5A-C-0044/en) (Russian Federation); [67](http://www.itu.int/md/R12-WP5A-C-0067/en) (Germany); [76](http://www.itu.int/md/R12-WP5A-C-0076/en) (WP 5C) |

# **3 Executive summary of the results of the ninth 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](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-0079!N01!MSW-E)).

The guide to the use of ITU-R texts related to the land mobile service, including wireless access in the fixed service, was updated and approved. It is available on the WP 5A webpage: <http://www.itu.int/ITU-R/go/rwp5a/en>.

WP 5A approved 20 liaison statements to other groups which are included in [Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N02!MSW-E).

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

At its ninth meeting Working Party 5A did not conclude work on any document for submission to Study Group 5.

## 3.3 Amateur and amateur-satellite services

Work was begun on WRC-15 Agenda item 1.4. A work plan and milestones for the agenda item were adopted ([Annex 5](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N05!MSW-E)). An initial liaison statement was sent to the contributing working parties. Working documents toward preliminary draft new Reports on compatibility and spectrum occupancy were considered and carried forward for future work, in [Annex 11](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N11!MSW-E) and [Annex 12](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N12!MSW-E), respectively, as were elements of draft CPM text ([Annex 4](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N04!MSW-E)).

Review of ITU-R documentation relevant to the amateur and amateur-satellite services continued. One working document toward a preliminary draft new Recommendation, “Telegraphic alphabet for data communication by phase shift keying at 31 baud in the amateur and amateur-satellite services”, was raised to preliminary draft new Recommendation status ([Annex 10](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N10!MSW-E)), and revisions to the Handbook on the amateur and amateur-satellite services were considered and carried forward for future work ([Annex 13](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N13!MSW-E)).

## 3.4 Systems and standards

The development of a working document towards a preliminary draft new Report ITU-R [LMS.ATG] “Systems for public mobile communications with aircraft” continued ([Annex 14](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N14!MSW-E)) and a working document towards a preliminary draft revision of Recommendation ITU-R M.1801-1 “Radio interface standards for broadband wireless access systems, including mobile and nomadic applications, in the mobile service operating below 6 GHz” was initiated ([Annex 15](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N15!MSW-E)). Two liaison statements were sent to the BWA external organizations to inform them of these developments, respectively, and invite contributions for the next meeting of WP 5A. Three other reply liaison statements were sent, on hearing aids, on energy measurements (jointly with WP 5B, WP 5C and WP 5D), and on narrow-band wireless home networking ([Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N02!MSW-E)).

## 3.5 Public Protection and Disaster Relief

Work towards the revision of Report ITU-R M.2014 ([Annex 16](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N16!MSW-E)) continued, and the document’s status was changed to preliminary draft revision. Working documents were developed towards preliminary draft revisions of Recommendation ITU-R M.2009 ([Annex 17](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N17!MSW-E)), and Recommendation ITU-R M.2015 ([Annex 18](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N18!MSW-E)). Three liaison statements were sent to external organizations related to this work.

After due consideration of input contributions, the work necessitated under WRC-15 Agenda item 1.3, and discussion over several sessions, it was decided to discontinue development of the proposed preliminary draft new Report [LMS.PPDR.UHF CHANNELS] “Channelization scenarios for public protection and disaster relief operations in some parts of the UHF band in accordance with Resolution 646 (WRC-03)” ([Annex 6](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0788!N06!MSW-E) to [Doc. 5A/788](http://www.itu.int/md/R07-WP5A-C-0788/en) of the Study Period 2008-2012), as it was felt to be more appropriately handled within the relevant standards development organizations.

As part of the work under WRC-15 Agenda item 1.3, a workplan was developed based on input contributions and a draft outline for CPM text, which are contained in [Annex 7](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N07!MSW-E) and [Annex 6](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N06!MSW-E), respectively. Three liaison statements were sent to concerned groups and external organizations to convey the information including the work plan ([Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N02!MSW-E)).

## 3.6 Interference and sharing

Work continued on a working document towards a preliminary draft new Recommendation ITU-R M.[LMS.FA] “General guidelines for the planning of frequency block arrangements in large contiguous bandwidths for broadband applications in the mobile service” ([Annex 19](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N19!MSW-E)).

Work has been initiated on a revision of Report ITU-R M.2116-1 “Characteristics of broadband wireless access systems operating in the land mobile service for use in sharing studies” ([Annex 20](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N20!MSW-E)).

A number of liaison statements were developed to JTG 4-5-6-7, WP 4C and WP 5B to provide relevant information for sharing studies in response to WRC-15 Agenda Items 1.1, 1.2, 1.9.2, 1.10, 1.15 and 9.1.1 ([Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N02!MSW-E)).

**3.6.1** **Joint meeting of WP 5A and WP 5C**

On the basis of [Doc. 5A/11](http://www.itu.int/md/R12-WP5A-C-0011/en) about the activities of the correspondence group on the cross-border handbook, WP 5A and WP 5C held a joint plenary session to discuss common work. The Joint Correspondence Group for a Handbook on Cross-Border Coordination was discussed and it was agreed to continue the work with modifications to ensure that the text was not regulatory in nature (see [Section 6](#s6) of this report and [Annex 15](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5C-C-0047!N15!MSW-E) to [Doc. 5C/47](http://www.itu.int/md/R12-WP5C-C-0047/en)). The joint meeting of Working Parties 5A and 5C also considered a proposal on the applicability on the sectoral antenna pattern approximations in [Recommendation ITU-R F.1336-3](http://www.itu.int/rec/R-REC-F.1336/en) to the frequency range below 1 GHz, the joint meeting agreed to continue to study its applicability, and to invite more contributions on measured data for the sectoral antenna patterns (see [Annex 4](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5C-C-0047!N04!MSW-E) to [Doc. 5C/47](http://www.itu.int/md/R12-WP5C-C-0047/en)).

## 3.7 New technologies

Two working documents on Intelligent Transport Systems (ITS) were developed towards a preliminary draft revision of Report ITU-R M.2228 “Advanced intelligent transport systems (ITS) radiocommunications” ([Annex 21](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N21!MSW-E)) and a preliminary draft new Recommendation ITU-R M.[AUTO] “Systems characteristics of automotive radars operating in the frequency band 76‑81 GHz for intelligent transport systems applications” ([Annex 22](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N22!MSW-E)), respectively. The working document towards a preliminary draft revision of Report ITU-R M.2117 “Software-defined radio in the land mobile, amateur and amateur satellite services” ([Annex 23](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N23!MSW-E)) was developed further with the aim to complete a final editorial review at the 10th meeting of WP 5A. Work on the development of a working document on cognitive radio systems (CRS) was continued ([Annex 24](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N24!MSW-E)) and a workplan for further CRS studies was developed based on [Question ITU-R 241-2/5](http://www.itu.int/pub/R-QUE-SG05.241) and [Resolution ITU-R 58](http://www.itu.int/pub/R-RES-R.58) (Appendix 2 of [Annex 3](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N03!MSW-E) to [Document 5A/79](http://www.itu.int/md/R12-WP5A-C-0079/en)). Work on Agenda item 1.18 was conducted in cooperation with WP 5B ([Annex 8](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N08!MSW-E) and [Annex 9](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N09!MSW-E)). Four liaison statements were sent in relation to this work ([Annex 2](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N02!MSW-E)).

## 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 SG 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) was updated, and it 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)).

# 4 Objectives for the tenth meeting of WP 5A

The principal objective for the 10th meeting of WP 5A is to assess any work that may need to be conducted by WP 5A in support for the preparations for WRC-15 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 10th meeting of WP 5A:

## 4.1 Amateur and amateur-satellite

– Progress the work on WRC-15 Agenda item 1.4, in accordance with the adopted workplan and milestones:

Complete review of amateur service technical and operational characteristics and develop preliminary draft new Report.

Finalize workplan.

Begin sharing studies between proposed amateur service stations and existing service stations.

Provide any feedback on modelling and characteristics from other groups.

Develop preliminary draft new report(s) for sharing studies.

Transmit preliminary draft new report on amateur characteristics to contributing groups for final review.

Transmit preliminary draft new report(s) on sharing studies to contributing groups as appropriate for review.

Develop draft CPM text for Sections 1, 2, and 3, considering and incorporating from contributing groups.

Transmit draft CPM text to contributing groups for review.

– 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.

## 4.2 Systems and standards

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.ATG];

– development of a preliminary draft revision of Recommendation ITU-R M.1801.

## 4.3 PPDR

– To continue developing the revisions of Report ITU-R M.2014, and Recommendations ITU-R M.2009 and ITU-R M.2015, based on input contributions.

– Work on Agenda item 1.3 will continue based on the work plan developed at this meeting.

## 4.4 Interference and sharing

– Continue the revision of Report ITU-R M.2116 based on input contributions.

– Further progress the development of the working document towards Preliminary Draft New Recommendation [LMS.FA] on BWA band planning.

– Consider the need to provide comments to WP 4C if any additional parameters are needed for conducting sharing studies under WRC-15 Agenda item 1.10.

– Consider if deployment-related information on land mobile systems can be provided for the various sharing studies carried out by WP 4C.

## 4.5 New technologies

– Develop the working documents towards a PDN Report ITU-R M.[LMS.CRS2] on cognitive radio systems in accordance with Question ITU-R 241-1/5 and Resolution ITU-R 58. Contributions to the working document are invited.

– Development of a working document towards a preliminary draft revision of Report ITU-R M.2228 on advanced intelligent transport system (ITS) radiocommunications.

– Development of the working document towards a preliminary draft new Recommendation ITU-R M.[AUTO] on systems characteristics of automotive radars operating in the frequency band 76–81 GHz for ITS applications, in relation for Agenda item 1.18.

– Develop a liaison statement in response to a liaison statement from WP 5C which is requesting guidance on appropriate technical and operating characteristics of vehicular radars for the bands 76-77 GHz and 77-81 GHz as a matter of urgency. Contributions are invited on this topic.

## 4.6 Land Mobile Handbook

– With the completion of 5 volumes of the Land Mobile Handbook (including wireless access), no particular objectives are set for the 10th meeting. The development of future volumes will be contribution driven.

## 4.7 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)) 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 period of WP 5A (#10) is scheduled to be held from 5 November 2012 in Geneva. **The deadline for the submission of contributions is 16:00 hours UTC, 29 October 2012[[2]](#footnote-2).**

# 6 Progression of the work and concluding remarks

The work will continue by correspondence towards the tenth meeting of WP 5A, in particular towards the joint development with WP 5C of the Handbook on “Guidance for bilateral frequency use discussions on fixed/land mobile systems in the frequency range 29.7 MHz – [39.5 GHz]” on the basis of the Joint Correspondence Group activities (see Appendix 1 to [Annex 3](http://www.itu.int/md/dologin_md.asp?lang=en&id=R07-WP5A-C-0788!N03!MSW-E) for the updated terms of reference and Section 6.2 of [Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N01!MSW-E) for the e-mail reflector information).

[Annex 1](http://www.itu.int/md/dologin_md.asp?lang=en&id=R12-WP5A-C-0079!N01!MSW-E) also summarizes the status of the texts that are the responsibility of WP 5A (Section 1), the structure of WP 5A (Section 2), and the list of contacts for liaison and collaboration with other organizations under Resolution ITU-R 9-4 (Section 4).

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>.

In closing, the Chairman thanked all the WP 5A participants for their hard work, and in particular the Chairmen of the working groups, Ms. Amy Sanders and Messrs. Brennan Price, Lang Baozhen, Michael Kraemer, and Hitoshi Yoshino; the LMH Rapporteur, Dr. Gabrielle Owen, the vocabulary Rapporteur, Mr. Christian Rissone; the Liaison Rapporteurs, Mmes. Gabrielle Owen and Amy Sanders and Messrs. Brennan Price, Hitoshi Yoshino, and Paul Najarian; and the BR, in particular the WP 5A Counsellors, Mr. Sergio Buonomo and Mr. Norifumi Yamaguchi, for the excellent support provided at the meetings.

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1. <http://www.itu.int/ITU-R/index.asp?category=study-groups&rlink=workshop-wp5abc-wrc15&lang=en> [↑](#footnote-ref-1)
2. Members are strongly advised to pay attention to the strict time deadline. [↑](#footnote-ref-2)