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| **Radiocommunication Study Groups** |  |
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| Source: Document 5A/TEMP/326 (Rev.1) | **Annex 11 to Document 5A/844-E** |
| **4 June 2018** |
| **English only** |
| Annex 11 to Working Party 5A Chairman’s Report |
| REPORT ON ACTIVITIES IN SUPPORT OF wrc-19 agenda item 1.16 |
|  |

Working Party (WP) 5A was identified by CPM19-1 as the responsible group for WRC-19 agenda item 1.16 as follows:

 *1.16 to consider issues related to wireless access systems, including radio local area networks (WAS/RLAN), in the frequency bands between 5 150 MHz and 5 925 MHz, and take the appropriate regulatory actions, including additional spectrum allocations to the mobile service, in accordance with Resolution* ***239 (WRC-15)****;*

16th Meeting of WP 5A (May 2016)

– Began work on identifying technical and operational characteristics for WAS/RLAN.

– Developed a workplan for conducting studies and producing outputs relating to this agenda item.

– Developed initial drafts for new Reports on technical and operational characteristics and coexistence issues.

– Further developed the draft new Report on mitigation techniques.

– Developed liaison statements to request any needed technical and operational characteristics and clarifications from concerned groups.

17th Meeting of WP 5A (November 2016)

– Further developed draft new Reports on technical and operational characteristics and coexistence issues.

– Further developed the draft new Report on mitigation techniques.

– Considered the need for further liaison with the concerned group.

– Developed elements of draft CPM Text based on input contributions.

18th Meeting of WP 5A (May 2017)

– Further developed draft new Reports on coexistence issues.

– Further developed the draft new Report on mitigation techniques.

– Further developed draft CPM Text.

19th Meeting of WP 5A (November 2017)

– Completed a draft new Report on technical and operational characteristics and sent it to Study Group 5.

– Further developed a draft new Report on sharing studies and split it into separate reports per frequency band to facilitate progress on each issue individually.

– Further developed the draft new Report on mitigation techniques.

– Further developed the draft new Report on aggregate RLAN measurements.

– Further developed draft CPM Text.

– Liaised draft new Reports to concerned groups.

20th Meeting of WP 5A (May 2018)

– [Completed draft new Reports on sharing studies and mitigation techniques and sent them to Study Group 5.]

– Finalized the draft CPM Text.

– Submitted the draft CPM Text to the chapter rapporteur.

Remaining actions at future meetings of WP 5A:

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| --- | --- |
| Nov. 2018 | – Working document towards a preliminary draft new Report ITU-R M.[RLAN REQ-PAR] – *Technical characteristics and operational requirements of WAS/RLAN in the 5 GHz frequency range* ([Annex 21](https://www.itu.int/dms_pub/itu-r/md/15/wp5a/c/R15-WP5A-C-0650%21N21%21MSW-E.docx) to Document [5A/650](https://www.itu.int/md/R15-WP5A-C-0650/en))– Working document towards a preliminary draft new Report ITU-R M.[AGGREGATE RLAN MEASUREMENTS] – *Use of aggregate RLAN measurements from airborne and terrestrial platforms to support studies under WRC-19 agenda item 1.16* ([Annex 22](https://www.itu.int/dms_pub/itu-r/md/15/wp5a/c/R15-WP5A-C-0650%21N22%21MSW-E.docx) to Document [5A/650](https://www.itu.int/md/R15-WP5A-C-0650/en))– Working document towards a preliminary draft new Report ITU-R M.[RLAN SHARING 5 150-5 250 MHz] – *Sharing and compatibility studies of WAS/RLAN in the 5 150-5 250 MHz frequency range* ([Annex 24](https://www.itu.int/dms_pub/itu-r/md/15/wp5a/c/R15-WP5A-C-0844%21N24%21MSW-E.docx) to Document [5A/844](https://www.itu.int/md/R15-WP5A-C-0844/en))– Working document towards a preliminary draft new Report ITU-R M.[RLAN Sharing 5 350-5 470 MHz – *Sharing and compatibility studies of WAS/RLAN in the 5 350-5 470 MHz frequency range* ([Annex 25](https://www.itu.int/dms_pub/itu-r/md/15/wp5a/c/R15-WP5A-C-0844%21N25%21MSW-E.docx) to Document [5A/844](https://www.itu.int/md/R15-WP5A-C-0844/en))– Working document towards a preliminary draft new Report ITU-R M.[RLAN SHARING 5 725-5 850 MHz] – *Sharing and compatibility studies of WAS/RLAN in the 5 725-5 850 MHz frequency range* ([Annex 26](https://www.itu.int/dms_pub/itu-r/md/15/wp5a/c/R15-WP5A-C-0844%21N26%21MSW-E.docx) to Document [5A/844](https://www.itu.int/md/R15-WP5A-C-0844/en)) |

The list of relevant Recommendations and Reports referred to in the draft CPM text and the list of abbreviations and acronyms used in the draft CPM text for WRC-19 agenda item 1.16 appear in Attachments 1 and 2, respectively.

**Attachments:**

[Attachment 1](#att1): List of relevant Recommendations and Reports for agenda item 1.16 / Other references

[Attachment 2](#att2): List of abbreviations and acronyms used in the draft CPM text for agenda item 1.16

Attachment 1

List of relevant Recommendations and Reports for WRC-19 agenda item 1.16

ITU-R Recommendations:

| ITU-R Series | Recommendation number | Latest publication | Recommendation title | Agenda item | CPMchapter |
| --- | --- | --- | --- | --- | --- |
| M. | 1450 | [ITU-R M.1450-5](http://www.itu.int/rec/R-REC-M.1450/en) | Characteristics of broadband radio local area networks | 1.16 | 2 |
| M. | 1454 | [ITU-R M.1654-0](http://www.itu.int/rec/R-REC-M.1654/en) | e.i.r.p. density limit and operational restrictions for RLANS or other wireless access transmitters in order to ensure the protection of feeder links of non-geostationary systems in the mobile-satellite service in the frequency band 5 150-5 250 MHz | 1.16 | 2 |
| M. | 1652 | [ITU-R M.1652-1](http://www.itu.int/rec/R-REC-M.1652/en) | Dynamic frequency selection in wireless access systems including radio local area networks for the purpose of protecting the radiodetermination service in the 5 GHz band | 1.16 | 2 |
| M. | 1653 | [ITU-R M.1653-0](http://www.itu.int/rec/R-REC-M.1653/en) | Operational and deployment requirements for wireless access systems including radio local area networks in the mobile service to facilitate sharing between these systems and systems in the Earth exploration-satellite service (active) and the space research service (active) in the band 5 470-5 570 MHz within the 5 460 5 725 MHz range | 1.16 | 2 |
| M. | 2007 | [ITU-R M.2007-0](http://www.itu.int/rec/R-REC-M.2007/en) | Characteristics of and protection criteria for radars operating in the aeronautical radionavigation service in the frequency band 5 150-5 250 MHz | 1.16 | 2 |
| P. | 2108 | [ITU-R P.2108-0](http://www.itu.int/rec/R-REC-P.2108/en) | Prediction of Clutter Loss | 1.16 | 2 |
| P. | 2109 | [ITU-R P.2109-0](http://www.itu.int/rec/R-REC-P.2109/en) | Prediction of Building Entry Loss | 1.16 | 2 |
| RS. | 1166 | [ITU-R M.1166-4](http://www.itu.int/rec/R-REC-RS.1166/en) | Performance and interference criteria for active spaceborne sensors | 1.16 | 2 |
| RS. | 1632 | [ITU-R RS.1632-0](http://www.itu.int/rec/R-REC-RS.1632/en) | Sharing in the band 5 250-5 350 MHz between the Earth exploration-satellite service (active) and wireless access systems (including radio local area networks) in the mobile service | 1.16 | 2 |
| S. | 1426 | [ITU-R S.1426-0](https://www.itu.int/rec/R-REC-S.1426/en) | Aggregate power flux-density limits, at the FSS satellite orbit for radio local area network (RLAN) transmitters operating in the 5 150-5 250 MHz band sharing frequencies with the FSS (RR No. **S5.447A**) | 1.16 | 2 |

ITU-R Reports:

| ITU-R Series | Report Number | Latest Publication | Report Title | Agenda Item | CPMChapter |
| --- | --- | --- | --- | --- | --- |
| M. | 2115 | [ITU-R M.2115-1](https://www.itu.int/pub/R-REP-M.2115) | Testing procedures for implementation of dynamic frequency selection | 1.16 | 2 |
| M. | [RLAN REQ-PAR] | WDPDN Report ITU-R M.[RLAN REQ-PAR]([Doc. 5A/650](https://www.itu.int/md/R15-WP5A-C-0650/en) [Annex 21](https://www.itu.int/dms_pub/itu-r/md/15/wp5a/c/R15-WP5A-C-0650%21N21%21MSW-E.docx)) | Technical characteristics and operational requirements of WAS/RLAN in the 5 GHz frequency range | 1.16 | 2 |

Other references

*Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2015-2020*, pp. 24-25 (3 Feb. 2016), available at <http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/mobile-white-paper-c11-520862.pdf>

Attachment 2

List of abbreviations and acronyms used in the draft CPM text
for WRC-19 agenda item 1.16

| Abbreviations | Description (reference to RR) |
| --- | --- |
| RLAN | Radio Local Area Network |
| IP | Internet Protocol |
| Wi-Fi | a trademarked term meaning IEEE 802.11x |
| VoWiFi | voice-over-Wi-Fi |
| WAS | Wireless Access System |
| IMT | International Mobile Telecommunications |
| EESS | Earth Exploration Satellite Service |
| FSS | Fixed Satellite Service |
| NGSO | Non GSO |
| MSS | Mobile Satellite Service |
| GSO | Geosynchronous orbit |
| e.i.r.p. | Equivalent Isotropically Radiated Power |
| EIRP | Equivalent Isotropically Radiated Power |
| PSD | Power spectral density |
| LEO | Low Earth orbit |
| ARNS | Aeronautical radionavigation service |
| RTTT | Road Transport and Traffic Telematics |
| WIA | Wireless Industrial Automation |
| BFWA | Broadband Fixed Wireless Access |
| SRD | Short Range Device |
| ISM | Industrial, Scientific and Medical |
| SRS | Space Radiocommunications Station |
| MCL | Minimum Coupling Loss |
| DFS | Dynamic Frequency Selection |
| ITS | Intelligent Transport Systems |