**Comments on ECC Deliverable**

**“Draft ECC Report 358”**

**1 Sources**

**Entity: GSOA**

**Name of contributor: Natalia Vicente**

**2 General Comments**

The changes proposed are mostly editorial in nature. The proposals are concentrated in sections that are related to Fixed Satellite services. Some changes were also made to parts of conclusions of studies of WBB LMP with Fixed Service that are similar to the conclusions of FSS to make it consistent.

**3 Proposals related to the ECC Deliverables**

**Note:** Contributors shall use the following table to provide comments. It is also encouraged to provide as an annex a separate document showing the proposals with track changes. Minor editorial corrections do not need to be recorded in the table. The table is used in the resolution meeting to record how each proposal is addressed.

*The* following information must be included.

* **Comment number**: Sequential numbering of comments in the format “XX/1”, “XX/2” etc, where “XX” is the organisation name or a suitable abbreviation. Administrations may use CEPT country codes
* **Section number/Clause**: Relevant section number of the deliverable, use numbers where applicable e.g. “1.1”, “A1.4”, “List of abbreviations”
* **Paragraph/Figure/Table**: Paragraph number in section, e.g. “1”,”2”.. or Figure/Table, e.g. “Figure 1”, “Table 2”
* **Type of comment**: “General”, “Technical” or “Editorial” depending on the nature of the proposed changes
* **Comment**: Background/justification for proposed changes
* **Proposed change**: Proposed modifications shown in revision marks where possible. For more complicated changes (e.g. proposed deletion/addition of whole sections) or changes to tables it is sufficient to refer to the annex including the changes

| **Comment number** | **Section number**  **Clause** | **Paragraph**  **Figure**  **Table** | **Type of comment**  (General,  Technical or  Editorial) | **Comment** | **Proposed change** |
| --- | --- | --- | --- | --- | --- |
| GSOA/1 | 0 | Paragraph 11 | General | To remove capital letters in “Power Control” | For the purpose of studies, the following maximum power levels for 3GPP WBB LMP have been defined: low power with 31 dBm/100 MHz EIRP and medium power with up to 49 dBm/100 MHz or up to 51 dBm/100 MHz EIRP. The power level for WBB terminals (Mobile, Nomadic, IoT, Machine, FWA) of 28 dBm EIRP is considered and power control activation is obligatory. For DECT-2020 NR the power level is 23 dBm EIRP with a channel bandwidth of 6.912 MHz. For studies involving WBB medium power base stations, a range of antenna heights, up to 30 m above the ground, was studied and for studies involving WBB low power outdoor base stations maximum antenna height of 10 m above ground was studied. |
| GSOA/2 | 0 | Paragraph 16 | General | Change of wording to indicate that mitigation techniques could be considered during coordination on a case by case basis. The original text implied that mitigation techniques would always be available to facilitate coexistence. The new text also makes reference to the development of a recommendation which would provide guidance for coordination for administrations. | Nevertheless, appropriate mitigation techniques could be considered during coordination on a case by case basis to facilitate coexistence between WBB and FS/FSS systems, both at national level and with the neighbouring countries. CEPT is developing recommendations for administrations to provide guidance for coordination between these services. |
| GSOA/3 | 0 | Paragraph 24 | General | Different terms are used to refer to the development of a Recommendation for guidance to administrations to implement WBB LMP nationally. Proposal to use “recommendations” instead of “toolbox”. Guidelines could also be an appropriate term instead of toolbox. | CEPT is developing recommendations for administrations to provide guidance on the approach to coexistence in the band. There may be also a need to further develop relevant cross border recommendations. |
| GSOA/4 | 1 | Paragraph 1 | Editorial | Editorial change to split list of sharing studies to separate in-band and adjacent band studies. | … results of:   * sharing and compatibility studies between WBB LMP networks; * sharing and compatibility studies between WBB LMP networks and incumbent users in the 3.8-4.2 GHz frequency band, notably receiving satellite earth stations in the fixed satellite service and terrestrial fixed links to ensure the protection and the future evolution and development of incumbent users sharing this band and; * sharing and compatibility studies between WBB LMP networks and spectrum users in adjacent bands (such as MFCN below 3.8 GHz). |
| GSOA/5 | 3.1.1 | Paragraph 5 | General | Proposed text to highlight a possible future satellite application for which 3.8-4.2 GHz could be interesting based on international discussions. | These national frameworks provide visibility and legal certainty for the future development of earth stations in the 3800-4200 MHz band while also ensuring the development of 5G in the 3400-3800 MHz band. It is therefore important to consider all potential evolution of the use of the band by future satellite applications, one example being Direct-to-Device (D2D) applications, for which the C-band represents a band of interest in the future as shown through contributions to the WRC-23. |
| GSOA/6 | 4.2.1 | Table 8 | Editorial |  | Note: The combination of power and antenna gain should be such that the maximum defined EIRP per sector/BS is not exceeded. |
| GSOA/7 | 5.1.2.2 | Table 22 | General | Last part of the note under the table reflects an outdated matter for WRC-23 cycle discussion between WP4A and WP5D. This is no longer relevant. | NOTE: Studies using these short-term protection criteria could be assessed on the basis that these values were put forward by WP 4A to facilitate and complete the work for WRC-23 agenda items and these values may evolve in the future based on inputs to the ITU-R. |
| GSOA/8 | 6.2.4 | Paragraph 5 | General | See comment GSOA/2 | Nevertheless, appropriate mitigation techniques could be considered during coordination on a case by case basis to facilitate coexistence between WBB and FS systems, both at national level and with the neighbouring countries. |
| GSOA/9 | 6.3.2 | Table 37 | General | Values of clutter loss used are needed | FSS ES Receiver  30% at all times  WBB LMP  50% (urban)  0% (rural) |
| GSOA/10 | 6.3.2 | Figure 4 | General | The values of separation distance provided in the figure are quite lower compared to those of other studies. Is the clutter loss the main reason? | Figure 4: The minimum separation distance to satisfy the I/N=-10.5dB FSS ES long-term protection criterion |
| GSOA/11 | 6.3.2 | Paragraph 3 | General |  | The attenuation loss due to the terrain and buildings was determined using Recommendation ITU-R P.452-16 [14] and the terrain path profile. The terrain path profile was computed using a combination of the SRTM database (1 Arcsec resolution) and the French IGN building database (5 m resolution). |
| GSOA/12 | 6.3.4 | Paragraph 2 | Editorial | Deletion of duplicated word | The results of this single-entry study indicate that separations distances ranging |
| GSOA/13 | 6.3.4 | Paragraph 3 | Technical | Consistency between assumptions and results needs to be verified. | Assuming clutter is present at one end of the propagation path and considering that the WBB base station and the FSS earth station are pointing towards each other, the results indicate that the longest separation distance is approximately 16.5 km for medium-power WBB base stations without AASs (corresponding to a maximum EIRP of 49 dBm/5 MHz). |
| GSOA/14 | 6.3.5 | Last paragraph | General | The identified protection measures are needed | Based on the assumptions considered in this study, the analysis concluded that specific actions or measures could be implemented, as appropriate, to facilitate the deployment of LMP 5G systems while protecting existing and future use of FSS systems. |
| GSOA/15 | 6.3.7 | Last paragraph | Editorial | Acronym to be detailed | … (up to approximately 11.4 km for the DLR FSS ES case). |
| GSOA/16 | 6.3.8 | Paragraph 1 | General | Clarification of what is meant “with one sited clutter” with a footnote | 6 Clutter loss is applied at one end of the propagation path (29-31 dB of attenuation) |
| GSOA/17 | 6.3.8 | Paragraph 5 | General | See comment GSOA/2 | Appropriate mitigation techniques could be considered during coordination on a case by case basis to facilitate coexistence between WBB and FSS systems, both at national level and with the neighbouring countries. |
| GSOA/18 | 7.1.4 | Paragraph 6 | General | Propose to replace “toolbox” with “guidelines” | The particular semi-synchronisation could be further investigated as part of relevant guidelines in order to implement this approach on case-by-case basis in order to ensure more efficient usage of the spectrum as appropriate. |
| GSOA/19 | 7.1.8 | Last paragraph | General | Similar to comment GSOA/3 | CEPT is developing recommendations for administrations to provide guidance on the approach to coexistence in the band. |
| GSOA/20 | Annex 3 | All parts | General | It is proposed to use the last paragraph of section 4.1 as introductory text of the annex and put the remaining part of the annex in a dedicated document.  That would avoid emphasizing a specific contribution and would provide same consideration to the various inputs. | This Annex presents an example use-case, requiring coverage of a given industrial site, demonstrating how different BS deployment configurations can affect the coverage and deployment complexity of WBB LMP networks in the frequency band.  Detailed elements are provided in Document ECC PT1(XX)YYY . |
| GSOA/21 | Annex 4 | All parts | General | Remove hyperlinks to the references given that most references do not have hyperlink | Remove hyperlinks to the references |