| **US Radiocommunication Sector**  **FACT SHEET** | | |
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| **Study Group:** USWP 5B | | **Document No:** USWP5B26-22 |
| **Reference:** [WRC-23 5D/398](https://www.itu.int/md/R19-WP5D-C-0398/en), [WRC-19 5D/1192](https://www.itu.int/md/R15-WP5D-C-1192/en) | | **Date:** 9 February 2021 |
| **Document Title:** Draft Reply Liaison to Working Party 5D concerning WRC-23 Agenda Item 1.2 | | |
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| **Purpose/Objective**: To reply to WP 5D with the antenna patterns and percentage of time value in propagation model relating to the required sharing and compatibility studies to be carried out under WRC-23 agenda item 1.2. | | |
| **Abstract**:  At the November 2020 meeting, WP 5B sent a reply liaison statement to WP 5D which informs an update on Recommendations ITU-R M.1465 and M.1796. This contribution proposes a further reply from WP 5B to WP 5D on AI 1.2. | | |
| **Fact Sheet Preparer:** Dominic Nguyen | | |

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| **Radiocommunication Study Groups** |  |
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| Source: WRC-19 Document 5D/1192  Subject: WRC-23 agenda item 1.2 | **Document 5B/XX** |
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|  | **SPECTRUM ASPECTS** |

**United States of America**

REPLY LIAISON STATEMENT TO WORKING PARTY 5D

**1 Introduction**

The United States of America proposes a further reply liaison statement from WP 5B to WP 5D on AI 1.2.

Attachment revisions are presented for consideration.

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| Working Party 5B |
| REPLY LIAISON STATEMENT to working party 5D |
| WRC-23 agenda item 1.2 (Sharing and compatibility studies between IMT systems in 3 300‑3 400 MHz and radiolocation systems in 3 100-3 400 MHz) |

Working Party (WP) 5B thanks WP 5D for the liaison statement ([5B/156](https://www.itu.int/md/R19-WP5B-C-0156/en)). In WP 5B’s previously provided liaison statement ([5D/398](https://www.itu.int/md/R19-WP5D-C-0398/en)), WP 5B provided updates on Recommendation ITU‑R M.1465, “Characteristics of and protection criteria for radars operating in the radiodetermination service in the frequency range 3 100-3 700 MHz.”

WP 5B would like to provide the following guidance on future complementary studies relative to sharing and compatibility between IMT systems and radiolocation systems.

1. Recommendation ITU-R M.1851, “Mathematical models for radiodetermination radar systems antenna patterns for use in interference analyses” should be used as an antenna pattern reference for land-based and ship borne radars, as well as airborne radars.
2. When applying clutter loss in sharing studies as per Recommendation ITU-R P.2108, WP 5B recommends that clutter loss needs to be applied for IMT sites where their antennas are deployed below rooftop as given below as per Table 3-1 of IMT-2020 characteristics being developed for WRC-23 (Document 5D/TEMP/228 Attachment 4.5 of Chairman’s report “Working Document on Characteristics of Terrestrial Component of IMT For Sharing and Compatibility Studies in Preparation For WRC-23”)
   1. None of IMT sites deployed in sub-urban are below rooftop of buildings.
   2. 50% of IMT sites deployed in urban are below rooftop of buildings.
3. Similar to liaison statement Document 5D/1192 which was sent during the WRC-19 preparation cycle from WP 5B to WP 5D, it is being advised that.
   1. Percentage parameter (*p*) to be used in Recommendation ITU-R P.452 should consider values lower than 10%, e.g., 1%, to ensure a broader range of propagation assumptions are represented. The percentage parameter (p) feeds into Recommendation ITU-R P.452 depends on the incumbent protection criteria.
   2. Percentage parameter (*p*) to be used in Recommendation ITU-R P.528 should consider values lower than 10%, e.g., 1%, to ensure a broader range of propagation assumptions are presented. The percentage parameter (p) feeds into Recommendation ITU-R P.528 depends on the incumbent protection criteria.

A similar liaison statement to WP 5D will be sent later from WP 5B addressing the 10-10.5 GHz band once the IMT characteristics have been finalized.

WP 5B looks forward to continued collaboration with WP 5D on the progress of WRC-23 agenda item 1.2.

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| **Status:** For information and action as appropriate | |
| **Contact:** | **E-mail:** |

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