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ITU-APT Foundation of India (IAFI)¹

ADJACENT BAND COMPATIBILITY STUDIES OF IMT SYSTEMS IN THE MOBILE SERVICE IN THE BAND 1 492-1 518 MHZ WITH RESPECT TO SYSTEMS IN THE MOBILE-SATELLITE SERVICE IN THE BAND 1 525-1 559 MHZ

1 Introduction

Working Party 4C CG has been progressing the work related to IMT/MSS compatibility at 1 518 MHz. WP 4C has sent an update on its progress in Document [4C/194](#) on the measures considered for the coexistence of the IMT in the adjacent band to MSS at 1 518 MHz as part of the Recommendations to put forward for consideration by both WP 4C and subsequently by WP 5D. It is noted that WP 4C may plan to send updates of the Report and Recommendation from this meeting subject to the progress made at this meeting in finalising the documents. WP 5D may receive an updated version of the draft new Report and Recommendation before its next meeting.

2 Discussion

From the updated provided by the WP 4C CG in the Document 4C/194, it appears that good progress is being made to provide administrations guidance regarding the possible frequency arrangements and/or the size of the guard band between IMT and MSS while assigning the band 1 427-1 518 MHz for IMT.

In India, L-Band MSS operations in the band 1 525-1 559 MHz are being used extensively by the shipping industry whereby Indian shipping fleet use L-band Satcom to comply with GMDSS requirements, and fishing vessels that use L-band Satcom to support off-shore operations. Furthermore, L-band Satcom is also extensively used for aeronautical operations, by airlines and government agencies, as well as by land MSS terminals for disaster and logistical operations.

Noting that the Resolution **223 (Rev.WRC-19)** calls for compatibility studies in order to provide technical measures to ensure coexistence between MSS in the frequency band 1 518-1 525 MHz and IMT in the frequency band 1 492-1 518 MHz, it is important that the new Report/Recommendation cover, as per both IMO and ICAO suggestions, the following for guidance of the administrations:

¹ [IAFI](#) is a sector member of ITU-R.

- The Recommendation should apply to those administrations with maritime MSS operations in the frequency band 1 525-1 559 MHz.
- The Recommendation should contain recommended protection measures for out-of-band emissions from IMT systems using the frequency band 1 427-1 518 MHz. These out-of-band protection measures should be defined for the frequency band 1 518-1 559 MHz.
- The Recommendation should contain protection measures for land MSS terminals, maritime MSS terminals at ports and aeronautical MSS terminals at airports in the bands above 1 518 MHz including ensuring that provide the protection necessary for terminals used for the GMDSS (i.e., especially those based on protection of legacy Inmarsat-C terminals).
- The Recommendation should include information regarding the process underway in IMO to ensure that next-generation GMDSS terminals have increased resilience to interference, which if required, will assist administrations in determining the timing of applying further corrective adjustments on protection limits on IMT systems.
- The Recommendation should include options to be provided to enable MSS land terminals to operate in the band above 1 518 MHz without any interference from IMT systems.
- The Recommendation should include information regarding possible guard band to ensure coexistence between MSS and IMT.

3 Proposal

It is proposed that WP 4C, while progressing the work on the compatibility studies under Resolution **223 (Rev.WRC-19)** and sending updates to WP 5D, may kindly take into account the suggestions in section 2 above.
