

INTERNATIONAL TELECOMMUNICATION UNION

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PLENARY MEETING

Document XXXX-E  
30 July 2015  
Original: English

**Member States of the Inter-American Telecommunication Commission (CITEL)**

PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda item 1.1

1.1 to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution **233 (WRC-12)**;

**BACKGROUND:** The 1427-1518 MHz frequency range is the subject of an Inter-American Proposal (IAP) identifying the band for IMT (PCC. II. Doc. 3818). The United States and other Region 2 Administrations continue to use the 1518-1525 MHz frequency band for aeronautical mobile telemetry (i.e. “AMT,” or “flight test”). Together with 1435 – 1518 MHz, the band 1518-1525 MHz is essential for aerospace research and development, and for the certification of aircraft prior to commercial use. Real-time use of the band free of harmful interference is important for the protection of test aircraft, payloads, flight crews, and persons and property located beneath flight test airspace. Thus, the continued use of the entire 1435 - 1525 MHz frequency range on such basis is essential for the aerospace manufacturing industries, their many suppliers in Region 2, and Administrations benefiting from these test ranges and data results.

Important to this operation is Radio Regulation (RR) No. **5.343**, which prescribes “[i]n Region 2, the use of the band 1435-1535 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service.”

Studies conducted by JTG 4-5-6-7 for the 1429-1535 MHz frequency range demonstrated that spectrum sharing between AMT and IMT systems is impractical. For example, the studies concluded that co-frequency operation of AMT and IMT systems requires exclusion zones in excess of 100 km with respect to interference from IMT to AMT ground stations.<sup>1</sup> Moreover, ITU-R studies did not consider modifications to AMT's regulatory status (RR No. **5.343**). Modifying RR No. **5.343** could therefore disrupt existing coordination arrangements in Region 2 countries and impact commercial flight safety testing and training.

Thus, the United States proposed to maintain RR No. **5.343** as written in order to protect the flight safety aspects of AMT operations in Region 2 from harmful domestic and cross-border interference. PCC.II adopted, with the support of the United States, an Inter-American Proposal proposing no change to this footnote (PCC.II Doc. 3818).

The PCC.II IAP supporting no change for RR No. **5.343** in the 1435-1535 MHz frequency range resulted from a compromise agreement among fifteen administrations, including the United States, for IMT identification in the 1427-1518 MHz frequency range. The United States joined the CITELE IAP supporting IMT identification in the 1427-1518 MHz frequency range with the understanding that it will not implement IMT in that frequency range domestically due to the need to protect AMT operations. The resulting compromise preserves important protections for AMT spectrum that benefit the flying public in all CITELE administrations, while at the same time advancing IMT harmonization within the Region.

Finally, regarding the 1518-1535 MHz frequency range, the United States supports no change to the 1518-1535 MHz frequency range in Region 2 pursuant to the original United States' proposal agreed to prior to the CITELE agreement. This no change proposal for the 1518-1535 MHz frequency range replaces the existing U.S. no change proposal (PCC.II doc. 3692-1-1), and is expressly limited to WRC-15, Agenda Item 1.1.

## **Proposal:**

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<sup>1</sup> See *Sharing studies between potential International Mobile Telecommunication systems and aeronautical mobile telemetry systems in the frequency band 1 429-1 535 MHz*, Report ITU-R M. 2324-0 (2014), Annex 4.

ARTICLE 5

**Frequency allocations**

**Section IV – Table of Frequency Allocations**  
(See No. 2.1)

**NOC**      **USA/1.1(1518)/1**

**1 300-1 525 MHz**

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>1 518-1 525</b> FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.351A 5.341 5.342	<b>1 518-1 525</b> FIXED MOBILE 5.343 MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.351A 5.341 5.344	<b>1 518-1 525</b> FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.351A 5.341

**Reasons:** Based on studies submitted in ITU-R, co-frequency sharing between IMT and AMT is not practical; therefore, the 1518-1525 MHz band should not be identified for IMT use in Region 2.

**NOC**      **USA/1.1(1518)/2**

**1 525-1 610 MHz**

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>1 525-1 530</b> SPACE OPERATION (space-to-Earth) FIXED MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A Earth exploration-satellite Mobile except aeronautical mobile 5.349 5.341 5.342 5.350 5.351 5.352A 5.354	<b>1 525-1 530</b> SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A Earth exploration-satellite Fixed Mobile 5.343 5.341 5.351 5.354	<b>1 525-1 530</b> SPACE OPERATION (space-to-Earth) FIXED MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A Earth exploration-satellite Mobile 5.349 5.341 5.351 5.352A 5.354
<b>1 530-1 535</b> SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.353A Earth exploration-satellite Fixed Mobile except aeronautical mobile 5.341 5.342 5.351 5.354	<b>1 530-1 535</b> SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.353A Earth exploration-satellite Fixed Mobile 5.343 5.341 5.351 5.354	

**Reasons:** Based on studies submitted in ITU-R, co-frequency sharing between IMT and AMT is not practical; therefore, the 1525-1535 MHz band should not be identified for IMT use in Region 2.