

## **DRAFT**

### **UNITED STATES OF AMERICA**

#### **PROPOSALS FOR THE WORK OF THE CONFERENCE**

##### **Introduction**

In this document the United States of America makes a proposal under WRC-15 Agenda Item 1.1 regarding the 1435-1525 MHz band.

##### **Background**

The band 1435 MHz – 1525 MHz (and subsets of the band) have been identified as “suitable frequency ranges” for IMT; they have also been addressed in sharing studies conducted within Joint Task Group JTG 4-5-6-7 in preparation for the 2015 World Radio Conference. The band has been and continues to be used widely in the United States and other Region 2 Administrations for aeronautical mobile telemetry (i.e. “AMT,” or “flight test”).

The 1435 – 1525 MHz band is essential for aerospace research and development, and for the certification of aircraft prior to commercial use. Interference-free, real-time use of the band is essential to the protection of test aircraft, payloads, flight crews, and persons and property located beneath flight test airspace. The continued use of the band 1435 - 1525 MHz on an interference-free basis is essential for the aerospace manufacturing industries and their many suppliers in Region 2, including Administrations in both North and South America.

AMT sharing of the band with interference-limited IMT services has been demonstrated as infeasible in the above-referenced sharing studies.<sup>1</sup> The studies concluded independently that co-frequency operation of AMT and IMT operations requires exclusion zones in excess of 100 km with respect to interference from IMT to AMT ground stations, and over 350 km for interference from AMT aircraft to IMT systems on the ground. The latter distance is measured with respect to the flight test ground station that is supervising the flight test aircraft. Flight test aircraft routinely fly several hundred kilometers in all directions from their AMT ground stations. This

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<sup>1</sup> See JTG 4-5-6-7/Documents 4-5-6-7/156 (July 2013) and 4-5-6-7/ 291 (October 2013).

extends the impact of signals from aircraft transmitters to IMT users to distances that are well beyond the radio line of sight from the IMT user to the AMT ground station.

Radio Regulation 5.343, which is footnoted in the Table of Frequency Allocations, prescribes that “In Region 2, the use of the band 1435-1525 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service.” The United States proposes to retain this footnote in Region 2 in order to protect the flight safety aspects of AMT operations from domestic and cross-border interference in the Region.

For the foregoing reasons, the 1435 – 1525 MHz band should not be identified for IMT use in Region 2.

**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)**

**ARTICLE 5**

**Frequency allocations**

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

**NOC** USA/1.1/XX

**1 300-1 525 MHz**

<b>Allocation to Services</b>		
* * *	<b>Region 2</b>	* * *
	<b>1 429-1 452</b> FIXED MOBILE 5.343  5.338A 5.341	
	<b>1 452-1 492</b> FIXED MOBILE 5.343 BROADCASTING BROADCASTING-SATELLITE 5.208B  5.341 5.344 5.345	
	<b>1 492-1 518</b> FIXED MOBILE 5.343  5.341 5.344	
	<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	

**Reason:** Sharing studies show that co-frequency sharing between IMT and AMT is not feasible. Consequently, the 1435 – 1525 MHz band should not be identified for IMT use in Region 2.