

IWG 4- 074

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IWG -4

LightSquared's Recommended Draft Proposals for WRC-12

Integrated MSS Systems

BACKGROUND:

Integrated MSS Systems¹ use technology to integrate mobile-satellite and terrestrial components within a single system, will operate in the 1525- 1559 MHz and 1626.5-1660.5 MHz bands and will begin operations including deploying Complementary Ground Component (CGC) networks in 2011. Recent FCC decisions have stated that this band and the deployment of CGC is an essential element in the U.S. Administration's initiative to make additional spectrum available for mobile broadband deployment².

¹ The ITU-R Coordination Committee for Vocabulary ("CCV") is considering the definition of Integrated MSS System given below. This is also the working definition used in ITU-R Working Parties 4C, 4B, and 4A. See, *SUMMARY RECORD OF THE CCV/1-10 MEETING OF THE COORDINATION COMMITTEE FOR VOCABULARY (CCV)*, Document CCV/29, 22 March 2010 (Geneva). Within the ITU-R, the working definition for Integrated MSS Systems is:

An integrated MSS system is a system employing a satellite component and ground component where the ground component is complementary to the satellite component and operates as and is an integral part of the MSS system. In such systems the ground component is controlled by the satellite resource and network management system. Further, the ground component uses the same portions of MSS frequency bands as the associated operational mobile-satellite system.

² In the matter of Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz, and 2000-2020 MHz and 2180-2200 MHz, ET Docket No. 10-142, Notice of Proposed Rulemaking and Notice of Inquiry, released July 15, 2010, footnote 29.

Currently, the Radio Regulations do not have regulatory and technical provisions to address the unique architectural and operational aspects of the Complementary Ground Component (“CGC”) of Integrated MSS Systems. Consequently, it is essential that at the first opportunity, a World Radiocommunication Conference adopt provisions to associate CGC with MSS networks in the bands 1525-1559 MHz and 1626.5-1660.5MHz and also the conditions under which CGC networks will be permitted. Further, because the CGC is a terrestrial deployment that must be authorized by individual administrations, it is imperative to have a harmonized framework for global CGC deployment. Thus, until a future WRC is able to address the allocation status of CGC within Integrated MSS systems, it is necessary to adopt interim procedures for use by individual administrations for the coordination and ITU notification of CGC networks of Integrated MSS networks..

PROPOSALS:

Considering the imminent deployment of Integrated MSS systems, three proposals have been drafted for WAC recommendation to the FCC as U.S. Proposals for WRC -12. These proposals are:

- 1) Under Agenda Item 4 to modify Recommendation 206 into a Resolution [IMS 1.5/1.6 GHZ (WRC-12)] to indicate that Integrated MSS systems are being implemented in the 1525-1559 MHz and 1626.5-1660.5 MHz bands and to define, on an interim basis, MSS as including Integrated MSS systems with CGC in these frequency bands;
- 2) Under Agenda Item 7, to provide a Resolution[CGC.Notify] with interim procedures for the coordination and notification of Complementary Ground Components of Integrated MSS systems in the 1525-1544 MHz, 1545-1559 MHz, 1626.5- 1645.5 MHz and 1646.5-1660.5 MHz bands. This proposal includes a consequential modification to RR 5.354 to indicate that Resolution [CGC.Notify] applies in these bands; and
- 3) Under Agenda Item 8.2 to propose a WRC-16 Agenda item and an accompanying Resolution [CGC.Agenda (WRC-12)] “to consider adopting regulatory, technical and allocation provisions in the Radio Regulations to enable the Complementary Ground Component (“CGC”) of a mobile-satellite service (MSS) system to operate on a co-primary basis with the MSS allocation in the bands 1525-1544, 1545 -1559 MHz., 1626.5- 1645.5 MHz and 1646.5- 1660.5 MHz.

The three proposals build upon one another and, thus, are interdependent as described below.

The Resolution [IMS 1.5/1.6 GHZ (WRC-12)] proposal defines, on an interim basis, MSS in the bands 1525-1544 MHz, 1545-1559 MHz, 1626.5- 1645.5 MHz and 1646.5-1660.5 MHz as including CGC within Integrated MSS System networks. This will recognize that CGC is operating in the bands with the MSS links of the host Integrated MSS System.

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The Resolution [CGC. Notify] proposal creates a mechanism for the CGC networks being implemented by the notifying administration of the Integrated MSS System network and other Administrations implementing CGC to associate the CGC networks with the Integrated MSS network. It provides interim procedures, prior to action at WRC-16, that would permit the notifying administration to inform the ITU – BR and other administrations that the notified MSS network is an Integrated MSS System network, and to confirm that associated CGC networks that may be implemented by other administrations would operate within the parameters of the notified Integrated MSS System network. The proposal would also specify procedures to allow CGC networks to be included in satellite coordinations involving notified Integrated MSS Systems and other MSS networks being implemented in the bands 1525-1544 MHz ,1545-1559 MHz, 1626.5- 1645.5 MHz and 1646.5-1660.5 MHz. Resolution [CGC.Notify] would be made applicable only to the MSS in the 1525-1559 MHz and 1626.5 -1660.5 MHz bands through a consequential modification to No. 5.354.

Finally, the third proposal is for a WRC 16 Agenda item with an attendant Resolution [CGC.Agenda (WRC-12)] that addresses all of the regulatory technical and operational issues that are to be studied in the intervening period between WRC 12 and WRC 16 for WRC 16 consideration in addressing the appropriate allocation mechanism and structure to support CGC networks operating in an Integrated MSS network on a primary basis.

The three proposals are interdependent and are needed to provide through Resolution (IMS 1.5/1.6) and Resolution [CGC.Notify], an interim regulatory structure within the context of the Radio Regulations that will allow CGC to deploy and operate within Integrated MSS System networks until WRC 16 considers, through Resolution [CGC.Agenda], appropriate regulatory and operational modifications to the Radio Regulations to accommodate deployment and operation of CGC on a permanent basis..

The three Draft proposals are attached and are recommended for adoption by the FCC's WRC Advisory Committee as recommended draft U.S. proposals.

