

UNITED STATES OF AMERICA

DRAFT PRELIMINARY VIEWS ON WRC-11

AGENDA ITEM 1.2: Taking into account the results of studies carried out in accordance with Resolution 951 (Rev. WRC-07), to take appropriate action with a view to enhancing the international regulatory framework.

ISSUE: Enhancing the international regulatory framework to provide for Integrated Systems¹ by modifying Article 5 of the Radio Regulations (Article 5)² and other relevant parts of the Radio Regulations.

BACKGROUND: Resolution 951 (Rev. WRC-07) resolves “to develop concepts and procedures for enhancing the Radio Regulations to meet the demands of current, emerging and future radio applications, while taking into account existing services and usage.”³ In this regard, Resolution 951 (Rev. WRC-07) provides several options for enhancing the international regulatory framework to meet the demands of emerging services. Among these are Option 2 to revise current service definitions or add a new service definition⁴ and Option 4 to introduce composite services in the Table of Frequency Allocations or a combination of these.⁵ Resolution 951 also considers that “the allocations to the radiocommunication services should aim to reach the best outcome in terms of spectrum efficiency.”⁶

Recommendation 206 (WRC-07)⁷ recognizes that some administrations are implementing Integrated Systems. This is occurring on both a regional and global basis. Recommendation 206 (WRC-07) invites ITU-R participants to perform studies on

¹ Integrated Systems refer to systems employing MSS and terrestrial components where the ground component is complementary to and operates as a part of the MSS system and, together with the satellite component, provides an integrated service offering. In such systems the ground component is controlled by the satellite resource and network management system. Further, the ground component uses the same designated portions of the frequency band as the associated operational MSS system. These systems are referred to as MSS-ATC (MSS-Ancillary Terrestrial Component) in the United States and Canada, and MSS-CGC (MSS-Complementary Ground Component) in Europe.

² See Int’l Telecomm. Union [ITU], *Radio Regulations*, at Article 5 (2004).

³ ITU, *Enhancing the International Spectrum Regulatory Framework*, at resolves ¶ 1, Resolution 951 (Rev. WRC-07) (2007).

⁴ *Id.* at Annex 1 Option 2.

⁵ *Id.* at Annex 1 Option 4.

⁶ *Id.* at considering, ¶ e.

⁷ ITU, *Consideration on the Possible Use of Integrated Mobile-Satellite Service and Ground Component Systems in Some Frequency Bands Identified for the Satellite Component of International Mobile Telecommunications*, at noting ¶ b, Recommendation 206 (WRC-07) (2007).

sharing, technical and regulatory issues regarding these Integrated Systems. Currently, with respect to Recommendation 206 (WRC-07), the ITU-R is progressing work on defining Integrated Systems,⁸ their architectures, applications and performance objectives. Additionally, Integrated System proponents are preparing documents to initiate studies on Integrated System compatibility with other services.

DISCUSSION: Integrated Systems were not contemplated in the development of the current Radio Regulations. Consequently, the Radio Regulations are lacking provisions needed to adequately accommodate Integrated Systems. At the same time, Administrations are already adopting rules and providing for the implementation of Integrated Systems. However, this approach has been from either a domestic or sub-regional perspective, lacking the global scope necessary to adequately address satellite based networks.

Integrated Systems are unique in that, depending on the mobile user's location, traffic patterns and demand, transmission platforms (*i.e.* satellite and terrestrial) will vary dynamically. Consequently, for interference control or protection purposes, from a user handset perspective it is important to control and protect both platforms. Providing some form of recognition and regulatory certainty is therefore important to providing service. This situation should be addressed by modifications to Article 5 that, under specified conditions, would provide equal allocation status to both the satellite and terrestrial components of an Integrated System.

Other organizations have recognized the lack of Radio Regulation provisions to cover the case of Integrated Systems. In Europe, the CEPT Conference Preparatory Group Project Team A (CPG-PTA) has taken a preliminary position that the existing radio regulatory provisions do not allow a full deployment of MSS systems with CGC because of the absence in the ITU-R of procedures for their notification, registration and coordination.⁹ Furthermore, the CPG-PTA indicates that the most appropriate option for in particular the frequency bands 1980 - 2010 MHz/2170 - 2200 MHz is to introduce a new definition for the service combining features of mobile service and mobile satellite service to enable the introduction of CGC, for example an "Integrated Satellite service."¹⁰ CPG-PTA recognizes that introducing such a definition may require consideration of additional matters.

U.S. VIEW: The United States is of the view that the Radio Regulations should be revised to accommodate Integrated Systems by, among other things, modifying Article 5 to, under specified conditions, recognize the existence of the terrestrial component of a Integrated System operating in 1525 - 1544 MHz, 1545 - 1559 MHz, 1626.5 - 1645.5 MHz and 1646.5 - 1660.5 MHz and to provide primary allocation status to that

⁸ ITU, *Terminology Used for Networks Using Both Satellite and Terrestrial Links*, Working Party 4B, Annex 14 to Document 4B/51-E (2008).

⁹ Conference of European Postal and Telecommunications Administrations [CEPT], *Working Document Agenda Item 1.2*, at 11, CPG-PTA Temp 03.

¹⁰ *Id.* at 12.

component. The United States is also of the view, that in accordance with Recommendation 206 (WRC-07), ITU-R studies to support modifying the Radio Regulations should be carried out.