PCC.II/REC. 26 (XIII-09) [1]

GUIDELINES TO FACILITATE THE INTRODUCTION AND DEPLOYMENT IN THE AMERICAS OF INTEGRATED MSS SYSTEMS OPERATING IN THE 1-3 GHZ RANGE

The XIII Meeting of Permanent Consultative Committee II: Radiocommunications including Broadcasting,

CONSIDERING:

a) That Integrated MSS Systems [2] refer to systems employing Mobile-Satellite Systems (MSS) and terrestrial components where the ground component is complementary to and operates as part of the MSS system and, together with the satellite component, provides an integrated service offering;

b) That 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;

c) That Recommendation **206 (WRC-07)** considers 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;

d) That Recommendation **206 (WRC-07)** considers that MSS systems are suitable for public protection and disaster relief communications, as stated in Resolution **646 (WRC-03)**;

e) That Integrated MSS Systems can contribute substantially to bridging the digital divide in geographical terms, by combining coverage of vast rural areas and that of urban areas and facilitating the provision of telephony and data service;

f) That the ITU-T has undertaken studies and developed a vision for the concept of Next Generation Networks and that Integrated MSS Systems have features suitable for such networks,

FURTHER CONSIDERING:

a) That technology has evolved such that voice and data services can be provided over a range of delivery platforms, including both wireless (satellite, PCS, cellular, etc.) and wireline platforms;

b) That methods of delivery of such voice and data services should be transparent to consumers;

---

[1] CCP.II-RADIO/doc. 2013/09

[2] Integrated MSS 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.

c) That the system architecture and network control of Integrated MSS Systems is designed to integrate, seamlessly and transparently, the operation of the systems' terrestrial wireless ground component within the system's MSS component, which can enhance coverage and interoperability;

d) That the ITU-R has not performed studies on sharing, technical or regulatory issues with regard to Integrated MSS Systems, but that rules providing a regulatory, technical and/or operational framework to permit introduction and deployment of Integrated MSS Systems within the 1-3 GHz range are already in place in the United States of America, Canada, and, for the 2 GHz MSS band, in Europe;

e) That Europe is undertaking studies on sharing, technical and regulatory issues with regard to Integrated MSS Systems for Mobile satellite systems operating or proposed to be operating in the bands 1518-1525 MHz, 1525-1544 MHz, 1545-1559 MHz, 1610-1626.5 MHz, 1626.5- 1645.5MHz, 1646.5-1660.5MHz, 1668-1675MHz and 2483.5-2500 MHz;

f) That it is desirable to examine at the earliest opportunity within PCC.II suitable regulatory, technical and operational frameworks for national and regional implementation that may accommodate and further enable the global deployment of Integrated MSS Systems in the 1-3 GHz MSS frequency bands, considering that several systems are currently under active construction and due for deployment in the near future,

RECOGNIZING:

a) That Recommendation **206 (WRC-07)** invites the ITU-R to conduct studies, as appropriate, taking into account deployed and planned Integrated MSS Systems;

b) That Recommendation **206 (WRC-07)** recognizes the need to protect MSS, RNSS and RAS from harmful interference; and that other services and systems, including AMS(R)S, GMDSS, and MS need to be protected from harmful interference,

NOTING:

a) That in the United States, Authorizations to deploy Integrated MSS Systems have been issued, which include adoption of additional measures to protect other services and systems mentioned in Recognizing *b)* above;

b) That in the Americas, CITEL Member States' regulatory regimes vary regarding the use of the 1-3 GHz MSS bands;

c) That some CITEL Member States may wish to adopt new rules to establish regulatory, technical and operational frameworks to enable the introduction and deployment of Integrated MSS Systems within their respective territories, while taking account of the need to co-exist with, and provide protection from harmful interference to other services and systems;

d) That MSS networks are coordinated pursuant to the ITU Radio Regulations,

RECOMMENDS:

1. That CITEL Member States consider the elements of the Annex when developing their regulations for Integrated MSS Systems, while protecting other services and systems from harmful interference.

2. That CITEL Member States should consider, where necessary, appropriate measures to protect other services and systems from harmful interference when authorizing Integrated MSS Systems.

3. That CITEL Member States consider updating the Annex to this Recommendation should other relevant information become available in the future.

RESOLVES:

To revoke Recommendation PCC.II/REC.24 (XI-08).

ANNEX TO RECOMMENDATION PCC.II/REC. 26 (XIII-09)

GUIDELINES TO FACILITATE THE DEPLOYMENT OF INTEGRATED MSS SYSTEMS IN THE AMERICAS

Definition of Integrated MSS System

- 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 band as the associated operational mobile-satellite system.

Key Elements of Integrated MSS Systems

- Integrated MSS Systems employ an integrated MSS and ground infrastructure to deliver end user services.
- The ground component operates as an integral part of the MSS system, and can only be operated in conjunction with, and integral to, its associated MSS system and network.
- The combined MSS/ground system provides an integrated service offering.
- The ground component is controlled by the *satellite* resource and network management systems.
- The ground component uses the same portions of the frequency bands that are coordinated for its associated MSS system.

Integrated MSS Systems Regulatory Matters

Administrations may consider granting an Integrated System the same status as its MSS component if:

- The Integrated System ground component can only be operated in conjunction with, and integral to, its associated MSS system and network and within the geographical coverage area of the MSS system.
- The ground component is controlled by the satellite resource and network management systems.
- The combined space/ground system can provide an integrated service offering to end users using common handset capable of communicating with either the satellite or the terrestrial transmission path.
- Administrations should review their regulations to ensure the existing types of authorization are suitable for Integrated System.

Protection of other Services and Systems

- Administrations should ensure by adopting necessary technical measures in their telecommunication regulatory frameworks that Integrated MSS Systems presented for their approval are designed and operated in a manner that prevents harmful interference to other services operating according to the ITU Radio Regulations for which the host MSS system would be required to protect.
- Administrations should apply general service level requirements3 as a starting point for allowing Integrated MSS Systems in their administrations.
- Administrations should ensure that MSS operator developed system level/operational level parameters,4 based on particular system characteristics, but that may be different from service level protection parameters.
- Follow good practices, relevant ITU-R or other criteria (e.g., additional measures adopted by some administrations) to ensure that the introduction of terrestrial operations within Integrated MSS Systems do not cause harmful interference to other services, including, MSS, RNSS, GMDSS and AMS(R)S services.

---

3 Service level requirements are general requirements that administrations would apply to all Integrated MSS Systems and the relevant MSS frequency bands to determine initial compatibility within their intended operating environments.

4 System/operational level parameters are those parameters refined by the operating parties, and approved by administrations, to provide operational flexibility while maintaining compatibility and are specific to an integrated system within its frequency band of operation.