



**ORGANIZACION DE LOS ESTADOS AMERICANOS
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**Comisión Interamericana de Telecomunicaciones
Inter-American Telecommunication Commission**

**XXII MEETING OF PERMANENT
CONSULTATIVE COMMITTEE II:
RADIOCOMMUNICATIONS
INCLUDING BROADCASTING
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Managua, Nicaragua**

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**REPLY TO DECISION PCC.II/DEC. 155 (XXI-13),
“REQUEST FOR COMMENTS FOR A DRAFT
RECOMMENDATION ON THE USE OF 1710-1780 / 2110-2180
MHz BANDS IN THE AMERICAS FOR BROADBAND
MOBILE SERVICES”**

(Items on the Agenda: 3.2 and 3.3)

(Document presented by the delegation of Mexico)

INTRODUCTION

The administration of Mexico hereby presents this contribution to the Working Group on Terrestrial Fixed and Mobile Radiocommunication Service, pursuant to the provisions of decision PCC.II/DEC. 155 (XXI-13), by which the administrations are requested to provide comments and/or proposals with respect to document CCP.II-RADIO/doc. 3295/13, “DRAFT RECOMMENDATION ON THE USE OF 1710-1780 / 2110-2180 MHz BANDS IN THE AMERICAS FOR BROADBAND MOBILE SERVICES,” with the objective of finalizing the draft recommendation at the XXII Meeting of PCC.II.

Annex 1 contains a version of the draft recommendation that includes in track mode the proposal of the administration of Mexico. That proposal is intended to maintain the consistency of the content of that recommendation with its title and objective.

Additionally, as supplementary information, included as Annex 2 is the current and projected use of the 1710-1780 / 2110-2180 MHz band in Mexico.

Annex 1

DRAFT RECOMMENDATION PCC.II/REC. XXX (XXI-13)

USE OF THE 1710-1780 / 2110-2180 MHz BANDS IN THE AMERICAS FOR BROADBAND MOBILE SERVICES

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

CONSIDERING:

- a) That there is a need in the Region 2 countries to fulfil the fundamental objectives of universal access and service of our citizens to the Internet and the Information Society as they are a key element for the economic development and advancement of our societies, especially in developing countries;
- b) That mobile connectivity and the resulting capacity requirements are growing exponentially with the increasing adoption of smartphones and other data intensive access devices and there are a significant number of activities to find additional spectrum within countries and regions and also on a global basis;
- c) That it is essential that the use of the bands be harmonized regionally, and wherever possible, globally and it is also very important to consider how these bands that are identified, particularly those that are in the vicinity of existing or other potential bands, can be incorporated to maximize their use, taking into account the requirements of the current users of the frequency bands;
- d) That careful planning of band pairing, duplex spacing, uplinks, downlinks and contiguous channels can increase spectrum efficiency, decrease interference, improve roaming, reduce costs to consumers and provide access to more devices;
- e) That [Recommendation ITU-R M.1036-4](#) “Frequency arrangements for implementation of the terrestrial component of International Mobile Telecommunications (IMT) in the bands identified for IMT in the Radio Regulations (RR)” covers international frequency arrangements for all the bands identified for IMT in the ITU Radio Regulations;
- f) That [Recommendation PCC.II/REC. 8 \(IV-04\)](#) covers frequency arrangements for the bands 806-960 MHz, 1710-1885 MHz, 1885-2025 MHz, 2110-2200 MHz and 2500-2690 MHz;
- g) That the bands ~~1770-1780 MHz paired with 2170-2180 MHz are a contiguous extension of the pairing 1710-1770 MHz with 2110-21780 MHz, which are covered in 1770-1780 MHz paired with 2170-2180 MHz has significant synergy with the pairing of 1755-1770 MHz with 2155-2170 MHz, which is in accordance with~~ 3GPP Band 10, Arrangement B5 in [Recommendation ITU-R M.1036-4](#), and Arrangement 5 in [Recommendation PCC.II/REC. 8 \(IV-04\)](#);
- ~~h) That in several Region 2 countries there are thin rural and remote areas in which mobile satellite networks are the prime means of telecommunication, without which development would be seriously curtailed;~~

~~i) That *considering* h) of Recommendation 206 (Rev. WRC-12)¹, notes that “the ITU-R has performed frequency sharing studies and has determined that the coexistence between independent systems in the MSS and systems in the mobile services in the same spectrum without harmful interference is not feasible in the same or adjacent geographical area.”;~~

RECOGNIZING:

~~a) That Canada has identified the bands 2000-2020/2180-2200 MHz from the R2 allocations for use by MSS in conjunction with the Ancillary Terrestrial Component (ATC) as an integral part of the MSS offering;~~

~~b) That satellite networks in the band 2000-2020/2180-2200 MHz are operational and have been notified to the ITU;~~

~~c) That the rearrangement of the MSS allocations in the band constitute an opportunity of the utmost importance for substantially reorganizing and reallocating the radio spectrum, which is a scarce national resource and must be allocated in accordance with the best use required by a country's inhabitant while meeting the telecommunication requirements in *considering* h;~~

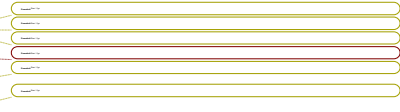
~~da) That use of the band 1710-1780 MHz / 2110-2180 MHz by broadband mobile services does not preclude use by other services to which these bands are allocated;~~



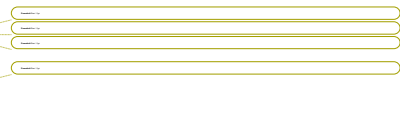
~~eb) That harmonizing extension spectrum within Region 2 enables the success of mobile broadband by providing economies of scale and simplified roaming.~~

RECOMMENDS:

~~1. That CITELE Administrations review their current allocations and use of spectrum in the 2 GHz range (1710-2025 MHz and 2110-2200 MHz) with a view to harmonizing spectrum available for mobile broadband and MSS use in the bands 2000-2020/2180-2200 MHz, taking into account relevant technical and operational considerations; factors that will optimize these allocations;~~



~~2. That CITELE Administrations that plan to use the 1710-1780 MHz / 2110-2180 MHz band for broadband mobile services, do so by adding additional contiguous bandwidth (10 + 10 MHz or 25 + 25 MHz, respectively) as an expansion of the existing bands (1710-1770 MHz / 2110-2170 MHz or 1710-1755 MHz / 2110-2155 MHz in some countries)~~



~~3. That CITELE Administrations that use other band plans as per Recommendation PCC-II/REC. 8 (IV-04) for mobile broadband consider the expansion of these band plans taking into account the resulting spectrum from the harmonization of the MSS allocation identified in as per recommends 1 above.~~



¹ Studies on the possible use of integrated mobile satellite service and ground component systems in the bands 1 525-1 544 MHz, 1 545-1 559 MHz, 1 626.5-1 645.5 MHz and 1 646.5-1 660.5 MHz

Anexo 2

En México los segmentos 1710-1770/2110–2170MHz han sido identificados para las IMT. Los bloques 1725-1755/2125–2155 MHz (banda AWS) han sido asignados recientemente para la provisión de servicios de telefonía móvil, mientras que los segmentos 1710-1725/2110-2125 MHz se encuentran disponibles y se prevé su asignación para el mismo servicio en el corto plazo.

Los bloques 1755-1770/2155-2170 MHz (banda AWS extendida) se encuentran reservados y se han contemplado para su asignación como una extensión de la banda AWS conforme al perfil 3GPP para la banda 10, debido a la pronta disponibilidad de equipos.

Por su parte los segmentos 1770-1780/2170-2180 MHz se encuentran en estudio, pues no existe aún ningún perfil de 3GPP que contemple el uso de la banda, por lo que la maduración de las tecnologías se tendría en un plazo más largo que con la banda AWS-extendida, sin embargo algunos operadores han manifestado gran interés en desplegar redes LTE en estos segmentos.

La configuración anterior se representa gráficamente en el siguiente esquema, en el que se aprecia la segmentación de la banda en modo de Duplexaje por División de Frecuencias (FDD).

Configuración actual de la banda 1.7/2.1 GHz

MHz	1710	1715	1720	1725	1730	1735	1740	1745	1750	1755	1760	1765	1770	1775	1780	:	2110	2115	2120	2125	2130	2135	2140	2145	2150	2155	2160	2165	2170	2175	2180								
ancho MHz	15		30						15		10																	15		30						15		10	
AWS	Por asignar		Asignado						Reservado		En estudio																	Por asignar		Asignado						Reservado		En estudio	

En este sentido, se ha dado seguimiento a las reuniones del Grupo de Trabajo 5D Sistemas IMT del UIT-R, en especial a la actualización de la Recomendación ITU-R M.1036-4, en donde se ha contemplado la modificación del arreglo de frecuencias B5 como se muestra en la siguiente figura.

Propuesta de modificación del arreglo de frecuencias B5

MHz	1710	1720	1730	1740	1750	1760	1770	1780	1790	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020	2030	2040	2050	2060	2070	2080	2090	2100	2110	2120	2130	2140	2150	2160	2170	2180						
ancho MHz	70																					60						60																				70						
B5_r1	Tx Móvil																					Tx Móvil						Tx Base																				Tx Base						

Con base en todo lo anterior, la Administración de México considera que los segmentos 1770-1780/2170-2180 MHz podrían emplearse como una extensión adicional de la banda AWS-extendida, siempre y cuando se tenga mayor claridad sobre la estandarización de este rango de frecuencias para que de esta manera sea factible trabajar en su identificación para servicios móviles.