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| **World Radiocommunication Conference (WRC-15) Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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| PLENARY MEETING | **Addendum 1 to Document 7-E** |
|  | **21 August 2015** |
|  | **Original: English** |
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| Member States of the Inter-American Telecommunication Commission (CITEL) | |
| Proposals for the work of the conference | |
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| 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)**;

**Background**

Due to the existence of an extensive network of earth stations in the region 2, it turns out to be unfeasible the allocation of the 3600-4200 MHz band to the mobile service in the region. C band, including the Extended C band, is of special relevance for other regions that have an extensive continental area. Southern Asia, for its similar meteorological conditions (great rain precipitation) is another world region where C band is extensively used.

The use of C band is widespread in Region 2, due to its climate characteristics, associated with its continental dimensions and the lack of telecommunications infrastructure in several parts of the region. Where fiber networks are not yet implemented, the use of C band is essential. In these bands, operate upstream signals of thousands of earth stations associated to networks that provide critical services for public institutions (functions of public order and security, natural disasters, social programs of distance learning, e-government services, etc.) that benefit millions of citizens. These bands are also used by commercial operators of public networks (DTH, Internet, VOIP, cellular backhaul) with millions of private users.

Due to the wide coverage characteristics, satellites operating in these frequency bands have been used extensively for rescue operations in case of catastrophes. In cases of catastrophic disasters such as tsunamis, earthquakes, hurricanes, etc where the telecommunications infrastructure "cable" is significantly or completely destroyed by the disaster, only radiocommunication services and especially the networks operating in the FSS can be used to disaster operations providing vital links between rescue teams on the ground, governments and health care benefits. Satellite networks using very small aperture stations, such as fixed and transportable VSAT stations are one of the most viable to provide emergency telecommunication services for rescue operations solutions. Systems operating in the FSS are not only vital for rescue operations in disasters, but are also extremely important before the disaster happens, enabling to provide alert to all that may be involved.

Many satellite systems in operation exist in the region whose network of earth stations deployed in the 3600-4200 MHz band makes it impossible for the Administrations to consider the use of that frequency band for mobile service.

The availability of FSS must be protected against interferences caused by wideband services in the following situations: adjacent channels in the 3400 - 3600 MHz segment and co-channels in the 3600 - 4200 MHz segment.

Last studies on sharing that have been conducted in ITU-R to assess the technical feasibility of introducing IMT Advanced systems in the band 3 400-4 200 MHz using the latest features of IMT-Advanced provided by the WP 5D to JTG. These sharing studies showing separation distances of tens of km, which, considering the spread of FSS earth stations in the region, makes coexistence impossible.

**Proposals**

ARTICLE 5

Frequency allocations

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

NOC IAP/7A1/15

2 700-4 800 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 3 600-4 200  FIXED  FIXED-SATELLITE (space-to-Earth)  Mobile | 3 500-3 700  FIXED  FIXED-SATELLITE (space-to-Earth)  MOBILE except aeronautical mobile  Radiolocation 5.433 | 3 600-3 700  FIXED  FIXED-SATELLITE (space-to-Earth)  MOBILE except aeronautical mobile  Radiolocation  5.435 |
|  | 3 700-4 200  FIXED  FIXED-SATELLITE (space to-Earth)  MOBILE except aeronautical mobile | |

**Reasons:** Due to the existence of an extensive network of earth stations in the region, it turns out to be unfeasible the allocation of the 3600-4200 MHz band to the mobile service in the region.

In the Americas region, this band is widely used by satellite systems in operation, and a large number of earth stations are deployed throughout its territory. Projects have also been developed for new satellites that have recently been placed in orbit and other projects exist for the future launch of satellites that include the C-band and extended C-band, making it virtually impossible to identify band 3600-4200 MHz for IMT in the region.