



**PLENARY MEETING**

**Doc. CPG(23)060 ANNEX  
V-05  
Addendum 5 to  
Document XXXX-E  
19 July 2023  
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## **European Common Proposals**

### **PROPOSALS FOR THE WORK OF THE CONFERENCE**

#### **Agenda item 1.5**

1.5 to review the spectrum use and spectrum needs of existing services in the frequency band 470-960 MHz in Region 1 and consider possible regulatory actions in the frequency band 470-694 MHz in Region 1 on the basis of the review, in accordance with Resolution **235 (WRC-15)**;

#### **Introduction**

CEPT is of the view that broadcasting and SAB/SAP will continue to need access to the frequency band 470-694 MHz and that cross border compatibility between broadcasting and mobile applications using uplink to base stations often requires large separation distances.

It is noted that the current GE06 framework allows administrations to notify digital entries in the Plan with characteristics/technologies other than Digital Video Broadcasting (DVB) under the envelope concept.

In addition, it is possible, on a national basis, to allow mobile use on a non-interference and non-protection basis with regard to broadcasting use in other countries. However, an allocation to the mobile, except aeronautical mobile, service (i.e. not limited to SAB/SAP) on a secondary basis would still assist some countries in the short- and mid-terms to develop other mobile-based applications that would meet their national needs and interests.

Therefore, CEPT proposes a secondary mobile, except aeronautical mobile, allocation in the frequency band 470-694 MHz in Region 1 and a revision of Resolution **235 (WRC-15)**, inviting the 2031 World Radiocommunication Conference to consider, based on the results of ITU-R studies, a possible upgrade of the mobile, except aeronautical, service, secondary allocation to primary allocation in the frequency band 470-694 MHz in Region 1. This secondary allocation of the frequency band falls within the scope of Method F included in the CPM Report.

#### **Proposals**

## ARTICLE 5

### Frequency allocations

#### Section IV – Table of Frequency Allocations

(See No. 2.1)

**MOD EUR/XXXXA5/1**

**460-890 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>470-694</b> BROADCASTING <a href="#">Mobile except aeronautical mobile</a> <a href="#">MOD 5.296</a>  5.149 5.291A 5.294 <del>5.296</del> 5.300 5.304 5.306 5.312	<b>470-512</b> BROADCASTING Fixed Mobile 5.292 5.293 5.295	<b>470-585</b> FIXED MOBILE 5.296A BROADCASTING  5.291 5.298
	<b>512-608</b> BROADCASTING 5.295 5.297	
	<b>608-614</b> RADIO ASTRONOMY Mobile-satellite except aeronautical mobile-satellite (Earth-to-space)	<b>610-890</b> FIXED MOBILE 5.296A 5.313A 5.317A BROADCASTING  5.149 5.305 5.306 5.307 5.320
	<b>614-698</b> BROADCASTING Fixed Mobile 5.293 5.308 5.308A 5.309	
	<b>698-806</b> MOBILE 5.317A BROADCASTING Fixed	
<b>694-790</b> MOBILE except aeronautical mobile 5.312A 5.317A BROADCASTING 5.300 5.312	<b>790-862</b> FIXED MOBILE except aeronautical mobile 5.316B 5.317A BROADCASTING 5.312 5.319	
<b>862-890</b> FIXED MOBILE except aeronautical mobile 5.317A BROADCASTING 5.322  5.319 5.323	<b>806-890</b> FIXED MOBILE 5.317A BROADCASTING  5.317 5.318	

**Reasons:** Introduce a secondary allocation to the mobile, except aeronautical mobile, service in the frequency band 470 – 694 MHz in Region 1.

**MOD EUR/XXXXA5/2**

**5.296** ~~Additional allocation: in Albania, Germany, Angola, Saudi Arabia, Austria, Bahrain, Belgium, Benin, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Burundi, Cameroon, Vatican, Congo (Rep. of the), Côte d'Ivoire, Croatia, Denmark, Djibouti, Egypt, United Arab Emirates, Spain, Estonia, Eswatini, Finland, France, Gabon, Georgia, Ghana, Hungary, Iraq, Ireland, Iceland, Israel, Italy, Jordan, Kenya, Kuwait, Lesotho, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malawi, Mali, Malta, Morocco, Mauritius, Mauritania, Moldova, Monaco, Mozambique, Namibia, Niger, Nigeria, Norway, Oman, Uganda, the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Slovakia, the Czech Republic, Romania, the United Kingdom, Rwanda, San Marino, Serbia, Sudan, South Africa, Sweden, Switzerland, Tanzania, Chad, Togo, Tunisia, Turkey, Ukraine, Zambia and Zimbabwe, the frequency band 470-694 MHz is also allocated on a secondary basis to the land mobile service, intended for applications ancillary to broadcasting and programme-making. Stations of the land mobile service in the countries listed in this footnote shall not cause harmful interference to existing or planned stations operating in accordance with the Table in countries other than those listed in this footnote. In Region 1 [except in ...], applications ancillary to broadcasting and programme-making, use the frequency band 470-694 MHz under the land mobile service.~~

~~Administrations to which this footnote applies are encouraged to make available sufficient spectrum for continued SAB/SAP operation.. (WRC-1923)~~

**Reasons:** SAB/SAP will continue to need access to the frequency band 470-694 MHz for the foreseeable future and this is recognized in the modified No. **5.296**.

**MOD EUR/XXXXA5/3**

RESOLUTION 235 (WRC-~~1523~~)<sup>1</sup>

**Examination of a possible upgrade of the secondary allocation to the mobile service to a primary allocation in Review of the spectrum use of the frequency band 470-~~960-694~~ MHz in Region 1**

The World Radiocommunication Conference (~~Geneva~~Dubai, ~~2015~~2023),

*considering*

- a) that the favourable propagation characteristics in the frequency bands below 1 GHz are beneficial in providing cost-effective solutions for coverage;
- b) that there is a need to continually take advantage of technological developments in order to increase the efficient use of the spectrum and facilitate spectrum access;

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<sup>1</sup> CEPT recommends, on the basis that the proposals made herein are adopted by the Working Group and Committee considering agenda item 1.5 during WRC-23, that this Committee would forward, at the conclusion of its work on this agenda item during WRC-23, the relevant part of this proposal relating to revised Resolution **235 (Rev.WRC-23)** to the responsible WRC-23 Committee and Working Group in charge of agenda item 10, for further consideration as an item for the WRC-31 preliminary agenda, along with the following title for that item: “2.XX to consider the examination of a possible upgrade of the secondary allocation to the mobile service to a primary allocation in the frequency band 470-694 MHz in Region 1.”

- c) that the frequency band 470-~~862-694~~ MHz is ~~a part of the~~ harmonized band used to provide terrestrial television broadcasting services ~~on a worldwide scale~~;
- d) that, in many countries, there is a sovereign national obligation ~~to on the provision of de~~ broadcasting services;
- e) that terrestrial broadcasting networks have a long life cycle, and a stable regulatory environment is necessary to provide protection of investment and future development;
- f) that in some countries, there is a decreasing use of Digital Terrestrial Television Broadcasting (DTTB) due to the evolution, broader availability and increased use of alternative media distribution platforms;
- g) that, in many countries, there is still a need for investment in the next decade for the migration of broadcasting into the frequency band below 694 MHz;
- ~~h) that many countries intend to and for the implementation of new-generation broadcasting technologies and new applications (e.g. UHD, 5G Broadcast); in order to take advantage of technological developments to increase the efficient use of the spectrum;~~
- gi) that in many developing countries terrestrial broadcasting is the only viable means of delivery of broadcast services;
- ~~h) that the technology trend in digital terrestrial television (DTT) is towards high-definition television which requires a higher bit rate than standard definition television;~~
- ~~i) that it is necessary to adequately protect all primary services in the frequency band 470-694 MHz and in adjacent frequency bands;~~
- ~~j) that International Mobile Telecommunications (IMT) systems, utilizing some parts of the frequency band 694/698-960 MHz, are intended to provide telecommunication services on a worldwide scale, regardless of location, network or terminal used;~~
- ~~kj) that, for countries listed in No. 5.296, an additional allocation to the land mobile service on a secondary basis is in place, indicates the use of the frequency band 470-694 MHz intended for by applications ancillary to broadcasting and programme-making;~~
- ~~k) that, in most countries, applications ancillary to broadcasting and programme-making are operating, and will continue to operate, in the frequency band 470-694 MHz or in parts of that frequency band, but that the availability of spectrum for these applications will be affected by the implementation of other applications of the mobile service;~~
- l) that the frequency band 645-862 MHz is allocated on a primary basis to the aeronautical radionavigation service (ARNS) in the countries listed in No. **5.312**;
- m) that, in some countries, parts of the frequency band are also allocated to the radiolocation service on a secondary basis, limited to the operation of wind profiler radars (No. **5.291A**); ~~and also to the radio astronomy service on a secondary basis (No. 5.306), and, according to No. 5.149, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference when making assignments to stations of other services;~~
- ~~n) that, in the African Broadcasting Area (see Nos. 5.10 to 5.13), the frequency band 606-614 MHz is allocated to the radio astronomy service on a primary basis (No. 5.304), and in the rest of Region 1 the frequency band 608-614 MHz, is allocated to the radio astronomy service on a secondary basis (No. 5.306), and, according to No. 5.149, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference when making assignments to stations of other services;~~

o) that WRC-23 allocated the frequency band 470-694 MHz in Region 1 to the mobile, except aeronautical mobile, service on a secondary basis, which enables some countries to implement mobile-based applications in order to address their national needs and interests,

*recognizing*

a) that the GE06 Agreement applies in all Region 1 countries, except Mongolia, and in Iran (Islamic Republic of), in particular for the frequency band 470-862 MHz, which includes the frequency band 470 – 694 MHz;

b) that the GE06 Agreement contains provisions for the terrestrial broadcasting service and other primary terrestrial services, a Plan for digital television and a list of stations of other primary terrestrial services;

c) that a digital entry in the GE06 Plan may also be used for transmissions in a service other than the broadcasting service under the conditions set out in § 5.1.3 of the GE06 Agreement and the provisions of No. 4.4 of the Radio Regulations;

d) that the sharing and compatibility studies carried out for the preparation of WRC-23 agenda item 1.5 do not need to be updated for applications already considered, except in cases of significantly changed technical characteristics; ~~information on implementation of the digital dividend and on the transition to digital television and its technological evolution is needed and may not be available before 2019~~

e) that there may be some changes over the coming years in the spectrum use and needs for broadcasting and mobile services;

f) that the protection of radio astronomy as an existing secondary service from mobile services (under a possible primary mobile allocation) may require an upgrade of the radio astronomy allocation in the band 608 – 614 MHz,

*noting*

a) the ongoing development of new applications and technologies of both the broadcasting and mobile services;

b) the studies regarding spectrum use and spectrum needs of existing services within the frequency band 470-960 MHz in Region 1, in particular the spectrum requirements of the broadcasting and mobile, except aeronautical mobile, services carried out for the preparation of WRC-23 agenda item 1.5;

c) the studies on sharing and compatibility in the frequency band 470-694 MHz carried out for the preparation of WRC-23 agenda item 1.5;

d) that ITU-R is studying possible solutions for global/regional harmonization of frequency bands and tuning ranges for electronic news gathering (ENG)<sup>1</sup> in accordance with Resolution ITU-R 59, to facilitate SAB/SAP operations;

e) that coexistence between applications of existing secondary services (e.g. SAB/SAP, radio astronomy and wind profiler radars) and other applications of the mobile service requires suitable sharing methods, which need to be defined,

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<sup>1</sup> ENG within Resolution ITU-R 59 represents all applications ancillary to broadcasting and programme making, such as terrestrial electronic news gathering, electronic field production, TV outside broadcast, wireless radio microphones and radio outside production and broadcast.

*resolves to invite ITU-R, after the 2019-2027 World Radiocommunication Conference and in time for the 2023-2031 World Radiocommunication Conference*

- 1 to review ~~the spectrum use~~ and needs of applications of broadcasting and mobile services, including applications covered by No. 5.296, and study the spectrum needs of existing services within the frequency band 470-960-694 MHz in Region 1, ~~in particular the spectrum requirements of the broadcasting and mobile, except aeronautical mobile, services, taking into account the relevant ITU Radiocommunication Sector (ITU-R) studies, Recommendations and Reports;~~
- 2 to identify the cases, if any, where significantly changed technical characteristics of mobile and broadcasting applications would result in a need to carry out update the sharing and compatibility studies, as appropriate, in the frequency band 470-694 MHz in Region 1 between the broadcasting and mobile, except aeronautical mobile, services, and other existing services that were already carried out in preparation for WRC-23 taking into account relevant ITU-R studies, Recommendations and Reports;
- 3 ~~to conduct sharing and compatibility studies, as appropriate, in order to provide relevant protection of systems of other existing services,~~
- 3 on the basis of *resolves* 2, above, to further develop existing sharing and compatibility studies and to determine the technical and regulatory conditions in order to provide adequate protection of systems of other existing primary and secondary services,

*invites administrations*

- 1 to participate actively in the studies by submitting contributions to ITU-R;
- 2 to make available sufficient spectrum for continued SAB/SAP operation, taking into account Resolution ITU-R 59;
- 3 to take appropriate measures to ensure the protection of radio astronomy stations from the mobile service,

*resolves to invite the 202331 World Radiocommunication Conference*

to consider, based on the results of ITU-R studies above, provided that these studies are completed and approved by ITU-R, a possible upgrade of the secondary allocation of the mobile, except aeronautical, service, to primary allocation regulatory actions in the frequency band 470-694 MHz in Region 1, and consequential regulatory actions, taking into account *resolves to invite ITU-R 3 and recognizing f), as appropriate,*

*further invites ITU-R*

- 1 to develop Recommendations/Reports, as appropriate, concerning coexistence between the different services and applications (including SAB/SAP) in the frequency band 470 – 694 MHz;
- 2 to ensure intersectoral collaboration with the ITU Telecommunication Development Sector (ITU-D) in the implementation of this Resolution.

**Reasons:** To enable a possible upgrade of the mobile, except aeronautical mobile, service allocation to primary at WRC-31, taking into account the evolution of the spectrum use and needs, while avoiding repeating sharing and compatibility studies already carried out prior to WRC-23. Sharing and compatibility studies would only need to be conducted where the evolution of technologies for broadcasting and mobile would impact the outcome of the previous studies.