

## REPORT OF THE FIRST WEEK OF THE WRC-23 (20 NOVEMBER – 15 DECEMBER 2023)

The World Radiocommunication Conference (WRC-23) was opened on 20 November 2023.

H.E. Mohammed Al Ramsi (UAE) was elected as the chairman of the Conference.

The European Communications Office (ECO) is publishing this report to provide an overview of the activities and results of the first week of WRC-23 (20-24 November). Relevant background information can be found on the [ECC website](#).

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Seven Committees were established by WRC-23:

- Committee 1: Steering Committee (composed of Chair and Vice-Chairs of the Conference and Committees);
- Committee 2: Credentials Committee (Basebi MOSINYI, Botswana);
- Committee 3: Budget Control Committee (Cindy COOK, Canada);
- Committee 4, 5 and 6: Specific Agenda Items Committees (see table below);
- Committee 7: Editorial Committee (Christian RISSONE, France).

Committees 4, 5 and 6 set up several Working Groups each. The responsibilities on the key agenda items for CEPT were then identified as highlighted below. Please note that several working groups also address relevant parts of agenda items 3 and 5.

Committee	Working Group/ Ad hoc Group	Agenda items
Committee 4 (Hiroyuki ATARASHI, Japan)	WG4A - Broadband applications in the mobile service (Mohamed MOGHAZI, Egypt)	1.1, 1.2, 1.4, Doc. 550 (WRC-19), 9.2 (relevant parts)
	WG4B - Aeronautical and maritime services (Sandra WRIGHT, USA)	1.6, 1.7, 1.8, 1.9, 1.10, 1.11, 9.1-b, Res. 427
	WG4C - Fixed, mobile and broadcasting services (Usman ALIYU, Nigeria)	1.3, 1.5, 9.1-c, 9.2 (relevant parts)
Committee 5 (Anna MARKLUND, Sweden)	WG5A - Science (Eric ALLAIX, France)	1.12, 1.13, 1.14, 9.1-a, 9.1-d
	WG5B - Satellite allocation (Abdulrahman AL-NAJDI, Saudi Arabia)	1.15, 1.16, 1.17, 1.18, 1.19
	WG5C - Satellite regulatory (Cheng FENHONG, China)	7, 9.2 (relevant parts), 9.3
Committee 6 (Abdouramane EL HADJAR, Cameroon)	WG6A – General Issues (Jonathan WILLIAMS, USA)	2, 4, 8, 9.1, 9.2 (relevant parts), Res. 655
	WG6B – Next WRC (Geraldo NETO, Brasil)	10

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## AGENDA ITEM 1.1 RR 5.441B (4 800-4 990 MHZ)

### Sub Working Group 4A1 (Baxton SIREWU, Zimbabwe)

*to consider, based on the results of ITU-R studies, possible measures to address, in the frequency band 4 800 -4 990 MHz, protection of stations of the aeronautical and maritime mobile services located in international airspace and waters from other stations located within national territories, and to review the power flux-density criteria in No. 5.441B in accordance with Resolution 223 (Rev.WRC-19)*

### CEPT POSITION

CEPT is of the view that,

- AMS and MMS stations located in international airspace or waters and operated in the band 4800-4990 MHz shall be protected on the basis of the following pfd limits provided in RR No. 5.441B and derived from detailed AMS and MMS characteristics and protection criteria:
  - In the frequency bands 4800-4825 MHz and 4835-4950 MHz,  $-140 \text{ dB(W/(m}^2 \cdot 1 \text{ MHz))}$  produced up to 19 km above sea level at 22 km from the coast, defined as the low-water mark, as officially recognised by the coastal State.
  - In the band 4800-4990 MHz,  $-134 \text{ dB(W/(m}^2 \cdot 1 \text{ MHz))}$  produced up to 30 m above sea level at 22 km from the coast, defined as the low-water mark, as officially recognised by the coastal State.
- These pfd criteria shall apply to IMT operating in national territories in order to protect AMS and MMS stations located in international airspace or waters and operating in the band 4800-4990 MHz, i.e. beyond the territorial seas.
- The above new pfd criteria shall apply to all countries listed in RR No. 5.441B ensuring consistency in the application of the limits.

### SHORT REPORT, INCLUDING STATUS FOR WEEK 1

Various proposals have been introduced on the different Methods included in the CPM Report: No Change, Method D/C2 (supported by CEPT), Method F (or similar), Method E.

All contributions submitted under agenda item 8 (Review of footnotes) requesting the addition of country names in No. 5.441B currently in force have been allocated to Sub Working Group 4A1. CEPT highlighted that it remains its understanding that those countries submitting these requests support the pfd limit approach and the current pfd limit in No. 5.441B.

### NEXT STEPS

Further discussions will take place on the various options to solve this agenda item.

## AGENDA ITEM 1.2 - IMT CENTIMETER BANDS

### **Sub Working Group 4A2 (Luciana CAMARGOS, Brazil)**

*to consider identification of the frequency bands 3 300-3 400 MHz, 3 600-3 800 MHz, 6 425-7 025 MHz, 7 025 -7 125 MHz and 10.0-10.5 GHz for International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution 245 (WRC-19)*

### **CEPT POSITION**

#### **3300-3400 MHz (amend footnote in Region 1)**

CEPT does not support amendments to footnotes **5.429A** and **5.429B** which could extend them to countries north of 30° parallel north. Thus, CEPT does not support an IMT identification for the entire Region 1. Furthermore, CEPT opposes amending the footnote to change the regulatory provisions applicable to IMT stations in the band. In particular, IMT stations shall not cause harmful interference to, or claim protection from, systems in the radiolocation service in various national and international operational environments and shall meet unwanted emission levels specified in the relevant ITU-R Recommendations. In addition, protection of FSS in the frequency band 3400-3800 MHz should also be ensured, as appropriate.

#### **3300-3400 MHz (Region 2)**

CEPT supports maintaining the regulatory provisions in the footnotes Nos. **5.429C** and **5.429D** applicable to IMT stations in this band. In particular, IMT stations shall not cause harmful interference to, nor claim protection from, systems in the radiolocation service in various national and international operational environments, and shall meet unwanted emission levels specified in the relevant ITU-R Recommendations.

#### **3600-3800 MHz (Region 2)**

CEPT would not oppose an IMT Identification in Region 2, noting that administrations of Region 2 are expected to define relevant provisions to protect FSS earth stations

#### **6425-7025 MHz (Region 1) and 7025-7125 MHz (globally)**

CEPT is neither proposing nor supporting an IMT identification of the frequency range 6425-7125 MHz but could accept it if the conditions below are fulfilled. If these conditions are not fulfilled, CEPT will support NOC (underlined).

CEPT will only accept an IMT Identification if all of the following five conditions are fully met:

- 1) the protection of relevant primary services is ensured (as provided in the European Common Proposal - ECP)
- 2) continued operation of other services (i.e. those identified in RR Nos. **5.458** for EESS (passive) and **5.149** for Radioastronomy) is addressed (as provided in the ECP) with additionally new EESS (passive) primary allocations in the frequency bands 4.2-4.4 GHz, and 8.4-8.5 GHz, to allow the continued operation of sea surface temperature (SST) measurements
- 3) no limitations are imposed on the existing services and their future development
- 4) the IMT Resolution clearly outlines opportunities for other broadband applications in the mobile services (i.e. WAS/RLAN) as well as sufficient flexibility regarding the future wireless broadband usage, i.e. by IMT, WAS/RLAN or under a shared framework between IMT and WAS/RLAN as provided in the ECP

- 5) WRC-23 does not approve an agenda item for WRC-27 studying additional IMT identifications in frequency bands between 7 and 30 GHz where IMT would have the potential to jeopardize important European space and governmental spectrum.

### **10000-10500 MHz (Region 2)**

CEPT is of the view that the result of a possible identification of the frequency band 10-10.5 GHz in Region 2 under this agenda item has a global impact on EESS (active) in the band 10.0-10.4 GHz and may have a global impact on EESS (passive) in the band 10.6-10.7 GHz due to the required protection of these services on a global basis. Moreover, interference would be detrimental to airborne and shipborne radars operating in 10-10.5 GHz under the radiolocation service operated by some CEPT countries in all Regions at 10-10.5 GHz. Sharing and compatibility studies between IMT and EESS (active) show that sharing between IMT and those services is not possible. Therefore, CEPT is of the view that the band 10-10.4 GHz should not be identified for IMT in Region 2 in order to ensure the protection of the radiolocation and the globally operating EESS (active) systems and in order to not impose any additional regulatory or technical constraints to these services.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

Most, but not all input documents have been presented within Sub Working Group 4A2. Drafting groups have yet to be formed.

Regarding the European Common Proposal on the 6 GHz band, there has been wide opposition to some of the CEPT conditions for accepting an IMT Identification (i.e. the conditions on Sea Surface Temperature measurements, linkage to a future agenda item on IMT and the inclusion of text on other broadband applications i.e. WAS/RLANs). These CEPT conditions as well as the proposal to have an IMT footnote for some countries in Region 3 have been raised at WG4A and COM 4 level. Some administrations/regional groups consider some or all of these items are out of scope of the agenda item Resolution **245 (WRC-19)**.

Offline discussions will be held to discuss these conditions further and the difficulties have also been reported to the Plenary.

Regarding the 10 GHz band, a Resolution is proposed with conditions which do not ensure protection of the incumbent services. In accordance with the European Common Proposal and the CEPT Brief, the No Change position has to be defended.

### **NEXT STEPS**

Drafting groups are expected to be formed to progress the issues for each band under this agenda item. Offline discussions will also need to take place on the 6 GHz band issues which are considered by some administrations/regional groups as being out of scope of the agenda item.

For the 10 GHz band, the discussions in the coming week will most likely focus on the technical conditions proposed in the draft Resolution.

## **AGENDA ITEM 1.3 - MS 3 600-3 800 MHZ**

### **Sub Working Group 4C1 (Cesar GUTIERREZ MIGUELEZ, Spain)**

*to consider primary allocation of the frequency band 3 600-3 800 MHz to the mobile service in Region 1 and take appropriate regulatory actions, in accordance with Resolution **246 (WRC-19)***

### **CEPT POSITION**

CEPT supports the upgrade of the allocation of the frequency band 3600-3800 MHz to the mobile, except aeronautical mobile, service on a primary basis in Region 1 to improve opportunities for the introduction of mobile service applications in Europe.

This support is subject to the conditions that the current use in the frequency bands 3400-3800 MHz and the protection of primary services, under the existing CEPT regulatory framework, can be continued, and that no undue constraints are imposed on the existing services and their future development.

In consequence, CEPT supports that the technical and regulatory conditions applicable to the band 3400-3600 MHz, in particular the pfd limit of -154.5 dBW/m<sup>2</sup>/4 kHz not to be exceeded for more than 20% of time 3 m above ground at the border to protect the neighbouring countries, are one part of the technical conditions in response to WRC- 23 Agenda item 1.3, recognising that sharing studies carried out in ITU-R ensured that the full objective of Resolution **246 (WRC-19)** has been met. In addition, CEPT opposes making these technical and regulatory conditions for the frequency band 3600-3800 MHz more stringent than those applicable to the band 3400-3600 MHz to protect FSS earth stations, in particular any changes to the value or percentage of time of the pfd limit, or to the height above ground where this limit applies.

CEPT does not support introducing any further requirements or requests for coordination, in particular under No. **9.21**.

CEPT is of the view that consideration of an IMT identification as well as consideration of the aeronautical mobile service in this band are not in the scope of Resolution **246 (WRC-19)**.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All input contributions have been presented and briefly discussed in Sub Working Group 4C1. During the discussion of the different proposals, requests for clarification were raised on technical and regulatory issues.

A compilation document that includes all the input contributions was provided together with a document that contains key elements of the different proposals that need to be addressed. It was agreed to start the work on the analysis of the key elements and try to converge for each issue.

### **NEXT STEPS**

Work is ongoing to mainly address technical elements concerning protection criteria for the fixed-satellite service. The question of possible IMT identification will be discussed at a later stage also considering guidelines from higher level groups.

## **AGENDA ITEM 1.4 - HIBS**

### **Sub Working Group 4A3 (Camilo ZAMORA, Micronesia)**

*to consider, in accordance with Resolution 247 (WRC-19), the use of high-altitude platform stations as IMT base stations (HIBS) in the mobile service in certain frequency bands below 2.7 GHz already identified for IMT, on a global or regional level*

### **CEPT POSITION**

CEPT supports regulatory provisions applying to HIBS in order to enable their use of the frequency bands 694-960 MHz, 1710-1885 MHz and 2500-2690 MHz while protecting other services and applications in these frequency bands as well as in the adjacent bands. Under the same line, the conditions pertaining to the IMT applications using high altitude platform stations (HAPS) as base stations as currently defined through RR N° 5.388A and Resolution 221 (Rev. WRC-07) are also proposed to be revised.

The regulatory provisions proposed by CEPT to ensure protection of other services are of three different nature applying as appropriate, specific geographical coordination, in-band or adjacent band pfd masks and limitation of the HIBS emissions to a specific direction.

CEPT is of the view that the use by HIBS of these frequency bands should be on a non-protection basis, since studies have not addressed the risk that HIBS may require more protection than conventional IMT base stations.

CEPT is of the view that the use of HIBS should be enabled at an altitude lower than 20 km, down to a minimum of 18 km, since ITU-R studies have confirmed that there is a negligible difference in terms of impact to other services.

CEPT is of the view that there needs to be a pfd limit for the protection of broadcasting and not a coordination trigger since that would allow an alternative coordination procedure for the band 694-960 MHz.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All input contributions have been introduced. The work focussed on the draft Resolution associated to the band 2500-2690 MHz, discussing the regulatory provisions. In addition, the meeting is discussing the definition of HIBS in the Radio Regulations.

### **NEXT STEPS**

The plan is to finalise the 2.6 GHz draft Resolution, the associated footnotes (methods) and frequency table of allocations, and then move to the bands 1710-1885 MHz, 1885-1980 MHz, 2010-2025 MHz and 2110-2170 MHz. The meeting agreed to discuss the UHF band as the final item, as it is the most complicated band for this agenda item.



## AGENDA ITEM 1.5 - UHF REVIEW

### **Sub Working Group 4C2 (Ronel LE GRANGE, Namibia)**

*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)***

### **CEPT POSITION**

CEPT supports a secondary allocation to the mobile service (except aeronautical mobile) in the frequency band 470 – 694 MHz to be made at WRC-23, with a future agenda item for WRC-31 to consider a possible upgrade to a primary allocation.

CEPT is of the view that sharing studies indicate that due care will be required in any introduction of new applications of the mobile service in the band.

CEPT is of the view that this agenda item seeks the long-term balance between (1) national requirements, in particular due to the evolution of spectrum usage and demands, and (2) the challenges of effective cross-border coordination between the existing services and various services/applications wishing to access spectrum, including applications of the mobile service.

In line with Resolution 235 (WRC-15), CEPT acknowledges and supports that no regulatory action is required in the band 694-960 MHz.

CEPT is of the view that the primary allocation of the 470-862 MHz band to the broadcasting service in Region 1 shall remain, in order to enable the protection and development of incumbent usage of the broadcasting service.

CEPT is of the view that any possible regulatory action by WRC-23 in the band 470-694 MHz shall not be in conflict with any provision of the GE06 Agreement.

CEPT supports the continuation and development of the incumbent usage by PMSE (SAB/SAP) (in accordance with existing RR No. **5.296**).

CEPT supports the protection of the radioastronomy service within the frequency band 606-614 MHz, where required, to ensure its continued operation. CEPT is of the view that any decision on regulatory action(s) in the band 470-694 MHz at the WRC-23 shall consider regulatory action to protect RAS, taking into account RR No. **5.149**.

CEPT is currently of the view that no changes are necessary concerning RR No. **5.291A** addressing the operation of wind profiler radars.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All input contributions have now been presented within Sub Working Group 4C2. Detailed discussions around the specific proposals have not yet started.

Two documents have been drafted to assist the work of SWG 4C2: a compilation document which consolidates all proposals into one document and a separate working document, which summarises and groups in tabular format the central aspects of each of the contributions.

Discussions regarding the central focus for the work of the SWG are ongoing and some concerns remain around the structure of the “Summary” working document.

#### **NEXT STEPS**

Efforts are ongoing to ensure that all elements and interdependencies between the various proposals within each of the contributions are accurately captured in the Summary working document. It has also been stressed by CEPT that detailed consideration of the compilation document is key to progressing with the work of the SWG.

## **AGENDA ITEM 1.6 - SUB-ORBITAL VEHICLES**

### **Sub Working Group 4B1 (Joe CRAMER, USA)**

*to consider, in accordance with Resolution 772 (WRC-19), regulatory provisions to facilitate radiocommunications for sub-orbital vehicles.*

#### **CEPT Position**

CEPT is of the view that a new WRC Resolution is required that:

- a new WRC Resolution is required that provides the conditions for the operation of terrestrial stations and earth stations fitted on board sub-orbital vehicles;
- the new Resolution should not affect the operation of satellite launchers operating in the space operation service.
- in response to *invites ITU-R 3* of Resolution 772 (WRC-19), CEPT has not currently identified any need for action to be taken after WRC-23 to identify additional spectrum for sub-orbital vehicles.

#### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All of the input documents have been introduced and there is agreement that a new Resolution should be developed that facilitates the introduction of sub-orbital vehicle operations but calls for additional studies to be undertaken. Work has started on considering the merged proposals for the new Resolution.

#### **NEXT STEPS**

The work through the merged proposals for the new Resolution will continue to agree the content.

## AGENDA ITEM 1.7 - AMS(R)S 137 MHz

### Sub Working Group 4B2 (Olivier AL PELLAY, France)

*to consider a new aeronautical mobile-satellite (R) service allocation in accordance with Resolution **428 (WRC-19)** for both the Earth-to-space and space-to-Earth directions of aeronautical VHF communications in all or part of the frequency band 117.975-137 MHz, while preventing any undue constraints on existing VHF systems operating in the aeronautical mobile (R) service, in the aeronautical radionavigation service, and in adjacent frequency bands*

### CEPT POSITION

CEPT supports a new primary allocation to AMS(R)S in the frequency band 117.975-137 MHz while:

- limiting the use of the new AMS(R)S allocation to non-geostationary satellite systems and internationally standardised aeronautical systems as developed by ICAO;
- mandating that the use of this new primary allocation to AMS(R)S be subject to coordination provisions of No. **9.11A**;
- ensuring protection of services in adjacent bands and not constraining these services;
- associating the new allocation with footnotes and a new WRC Resolution in order to detail certain elements of the regulatory framework.

CEPT is of the view that in-band coexistence between AM(R)S and AMS(R)S and adjacent-band coexistence with ARNS below 117.975 MHz need to be ensured through frequency planning and coordination work, taking into account the current ICAO frequency management framework.

CEPT is of the view that the provisions above will also ensure compatibility between AMS(R)S systems and AM(OR)S assignments in the band 132-137 MHz of countries listed in RR Nos. **5.201** and **5.202**.

CEPT is of the view that the protection of adjacent band services operating above 137 MHz from AMS(R)S emissions can be ensured:

- through the 1 MHz frequency separation in 136-137 MHz and RR Appendix **3** limits for spurious emissions for AMS(R)S systems operating in 117.975-136 MHz,
- through 62.5 kHz frequency separation and RR Appendix **3** limits for spurious emissions for the band 136.9375-137 MHz and
- through a limit on the level of unwanted emissions above 137 MHz for AMS(R)S emissions from systems operating in 136.9375-137 MHz.

CEPT is of the view that when operating in the frequency band 136.8-137 MHz, AMS(R)S space receivers shall be able to operate in the presence of out-of-band aggregated power level as described in the draft new Resolution **[EUR-A17-SAT-VHF] (WRC-23)**, as a result of satellite systems operating in the frequency band 137-138 MHz, without imposing additional regulatory provisions on those services operating in the frequency band 137-138 MHz.

### SHORT REPORT, INCLUDING STATUS FOR WEEK 1

All the input contributions were introduced, identifying the main areas for discussion. These include mainly:

- the exclusion of No. **9.16** from coordination sub-provisions in No. **9.11A** as sought by RCC and CITEL,
- pfd values and “service application” for in-band coordination thresholds
- pfd values and band of application for protection of services operating above 137 MHz
- not constraining planned usage of systems operating above 137 MHz due to AMS(R)S space station protection

- new Resolution

Discussion on the implications of coordination provisions in No. **9.16** have started with elements provided by ITU BR. CEPT is currently the only regional organisation proposing to maintain the application of No. **9.16** for new aeronautical terrestrial stations, while the suppression of No. **9.16** is supported by CITELE, RCC and ASMG.

#### **NEXT STEPS**

To further progress the discussion on all topics and reach agreement.

## AGENDA ITEM 1.8 - RESOLUTION 155

### **Sub Working Group (Per HOVSTAD, China)**

*to consider, on the basis of ITU-R studies in accordance with Resolution 171 (WRC-19), appropriate regulatory actions, with a view to reviewing and, if necessary, revising Resolution 155 (Rev.WRC-19) and No. 5.484B to accommodate the use of fixed satellite service networks by control and non-payload communications of unmanned aircraft systems*

### **CEPT POSITION**

CEPT is of the view that if the conditions for the safety operation of CNPC established by ICAO cannot be met with the existing FSS link as it stands, then this link should not be used by the UAS operator.

CEPT is of the view that the safety aspects of UAS CNPC shall not have any impact on:

- the existing terrestrial services and their current and expected applications;
- the relevant existing agreements reached during FSS satellite coordination process;
- the future coordination of FSS networks during the application of provisions of Articles 9 and 11 of the Radio Regulations.

CEPT considered two options in accordance with Resolution 171 (WRC-19) to respond to this agenda item:

- to suppress RR No. 5.484B together with Resolution 155 (Rev.WRC-19) as well as Resolution 171 (WRC-19)
- to modify RR No. 5.484B and Resolution 155 (Rev.WRC-19) and to suppress Resolution 171 (WRC-19)

No agreement was reached on these options.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All documents were introduced in Sub Working Group 4B3. Proposals were received either to revise or suppress Resolution 155 (Rev.WRC-19).

### **NEXT STEPS**

Proposals for revision of Resolution 155 (Rev.WRC-19) will be consolidated in a baseline document for further discussions. At the same time contributors proposing the suppression of Resolution 155 (Rev.WRC-19) have been asked to consolidate the reasoning for their proposal for further discussions.

## **AGENDA ITEM 1.9 - APPENDIX 27**

### **Sub Working Group 4B4 (Glenn ODLUM, Australia)**

*to review Appendix 27 of the Radio Regulations and consider appropriate regulatory actions and updates based on ITUR studies, in order to accommodate digital technologies for commercial aviation safety-of-life applications in existing HF bands allocated to the aeronautical mobile (R) service and ensure coexistence of current HF systems alongside modernized HF systems, in accordance with Resolution 429 (WRC19)*

### **CEPT POSITION**

CEPT is of the view that the current version of RR Appendix 27 does not preclude the use of wideband digital HF communication by using multiple channels simultaneously.

CEPT proposes:

- The introduction in the Appendix 27 of the relevant parts of the current text of the Rules of Procedure for clarification and,
- adjustments of the Appendix 27 of the RR to make explicit the possibility to use wideband emissions by aggregation of multiple individual channels each of which complies with the provisions of Appendix 27.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All input documents were introduced in Sub Working Group 4B4. All regions are in favour of Method B of the CPM Report. The meeting agreed to consider the European Common Proposal as baseline document. The finalised and agreed document has been submitted to Committee 4

### **NEXT STEPS**

Committee 4 will consider for approval the output of the Working Group.

## AGENDA ITEM 1.10 - AMS NON-SAFETY

### **Sub Working Group 4B5 (Saad ALASKAR, Saudi Arabia)**

*to conduct studies on spectrum needs, coexistence with radiocommunication services and regulatory measures for possible new allocations for the aeronautical mobile service for the use of non-safety aeronautical mobile applications, in accordance with Resolution 430 (WRC19)*

### **CEPT POSITION**

CEPT acknowledges the need for additional spectrum to fulfil the increasing demand for non-safety aeronautical mobile applications. Therefore, CEPT supports new allocations to AM(OR)S for non-safety application in the whole range or a part of the frequency bands 15.4-15.7 GHz and 22-22.21 GHz while:

- ensuring protection of the EESS/SRS (passive), and the RAS from unwanted emissions of the AM(OR)S;
- not claiming protection nor create harmful interference to radiolocation and aeronautical navigation services in the 15.4-15.7 GHz frequency band;
- ensuring protection of the primary allocations to fixed-satellite (Earth-to-space) service in the frequency band 15.43-15.63 GHz;
- ensuring protection of the primary allocations to the fixed and mobile services in the frequency band 22-22.21 GHz noting that the frequency range 21.2-23.6 GHz is allocated to the fixed service;
- considering that RR No. 5.149 applies, also recognizing that some CEPT administrations operate RAS under their National regulation with a primary or secondary status in the frequency band 22.00-22.21 GHz.

Noting that some CEPT Administrations operate water vapour radiometers in the frequency range 22-22.5 GHz utilized by some radio astronomy stations and in a variety of environmental applications, including weather forecasting and nowcasting, as well as climate monitoring for meteorology, CEPT will also ensure their necessary protection.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All input documents were introduced in Sub Working Group 4B5. There is some opposition and some support for the proposals that will need to be solved during the drafting activity

### **NEXT STEPS**

The drafting activity is planned to start on Monday.



## **AGENDA ITEM 1.11 - GMDSS**

**Sub Working Group 4B6 (Issue A and B: Mohammed ALHASSANI, UAE; Issue C: Xia GE, China)**

*to consider possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System (GMDSS) and the implementation of e-navigation, in accordance with Resolution 361 (Rev. WRC19)*

### **CEPT POSITION**

#### **Issue A: Modernisation of GMDSS**

CEPT supports regulatory actions needed to implement the GMDSS modernisation in the Radio Regulation based on decisions taken in IMO.

CEPT supports in particular:

- the removal of narrow band direct printing from the GMDSS and introduction of an automatic connection system for MF and selected HF bands;
- the introduction of NAVDAT as a component of the GMDSS;
- to accommodate Automatic Identification System - search and rescue transmitters (AIS-SARTs) as homing equipment for survival craft stations, as an alternative to Radar-SARTs;
- to accommodate Automatic Identification System homing signals provided by EPIRBs (EPIRB-AIS) as an alternative to EPIRBs sending signals on 121.5 MHz and 243 MHz;
- the removal of satellite EPIRBs operating in the frequency band 1645.5-1646.5 MHz (Earth-to-space) from the GMDSS in the Radio Regulations.

#### **Issue B: e-navigation**

CEPT is of the view that no change to the Radio Regulations is required as a consequence of no decision taken by IMO regarding spectrum requirements to implement e-navigation.

#### **Issue C: Regulatory action due to the introduction of additional satellite systems into the GMDSS by IMO**

CEPT does not support the introduction of the regional satellite system BEIDOU in the Radio Regulations in order to be part of the GMDSS, even if the IMO has recognised the BEIDOU Message Service System as a GMDSS service provider. The reasons are the lack of justification of the frequency requirement, the incompatibility with the current usage of the 1610-1626.5 MHz and 2483.5-2500 MHz bands in which BEIDOU would like to operate and the non-achievement of the frequency coordination with the other MSS systems present in these frequency bands.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

Sub Working Group 4B6AB agreed No Change to Issue B and agreed on most of the proposals under Issue A, in line with the CEPT position.

The only open and possibly difficult point under Issue A is the future use of the band 1645.5-1646.5 MHz. CEPT agreed that a possible No Change to No. 5.375 might be a way of compromise, as long as the band is deleted from Table 15-2, according to the European Common Proposal. This has been presented in SWG4B6AB as a possible way forward.

Under Issue C the first two sessions of SWG4B6C were not able to agree to an agenda.

#### **NEXT STEPS**

Discussions on the proposed way forward for Issue A are expected on Monday. With Issue C, no course of action is clear yet.

## **AGENDA ITEM 1.12 - EESS (ACTIVE) RADAR SOUNDERS**

### **Sub Working Group 5A1 (Bruno ESPINOSA)**

*to conduct, and complete in time for WRC-23, studies for a possible new secondary allocation to the Earth exploration-satellite service (active) for spaceborne radar sounders within the range of frequencies around 45 MHz, taking into account the protection of incumbent services, including in adjacent bands, in accordance with Resolution 656 (Rev.WRC-19)*

### **CEPT POSITION**

CEPT supports a new secondary allocation to the Earth exploration-satellite service (active) in the 40-50 MHz band while ensuring the protection of incumbent services already allocated to the 40-50 MHz band or adjacent frequency ranges.

CEPT supports the development of technical and regulatory provisions, which would provide protection to the incumbent services while allowing the operation of spaceborne radar sounders in the EESS (active). Specifically, CEPT proposes to apply a set of pfd limits to EESS (active), one reference value (-147 dB(W/(m<sup>2</sup> · 4 kHz))) not to be exceeded for more than 0.05% of the time and a cap value (-136 dB(W/(m<sup>2</sup> · 4 kHz))), with additional provisions to cover the case of multiple EESS (active) spaceborne radar sounders in operation.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

After presentation of various documents and regional positions, it already appears that a global allocation to EESS (active) as proposed by CEPT would be difficult to reach.

The current discussions are looking at finding a possible compromise roughly based on the CITELE proposal with EESS (active) operations limited to the poles and Greenland whereas outside of these areas, operations might be possible upon agreement of specific administrations.

The difficulty will be to find an agreement on the detailed conditions of operations in the "poles areas" where CITELE does not provide any pfd limits and other proposals (RCC and Japan in particular) are currently proposing -156 dBW which would not allow EESS (active) to operate.

This proposal diverges significantly from the ECP however CEPT is discussing the matter openly towards a possible compromise, while insisting on the fact that the conditions within the "poles area" (pfd limits, limitation in operations time, ...) need to be realistically compatible with the design of EESS (active) equipment.

There are also some side issues related to Wind Profiler radars (WPR) with some proposals to add country names (and possibly Antarctica) in the Radio Regulations footnote No. 5.162A. CEPT made it clear that this could be accepted provided that it is not used by those administrations to degrade the EESS (active) status compared to this secondary radiolocation allocation (as in the Japanese proposal)

### **NEXT STEPS**

Continue discussions in order to reach consensus and identify compromise solutions on the above issues.

## **AGENDA ITEM 1.13 - SRS 15 GHZ**

### ***Sub Working Group (Anton STEPANOV, Russian Federation)***

*to consider a possible upgrade of the allocation of the frequency band 14.8-15.35 GHz to the space research service, in accordance with Resolution 661 (WRC-19)*

### **CEPT POSITION**

CEPT is supporting an upgrade of the space research service (SRS) allocation to satellite systems operating in the space-to-space, space-to-Earth and Earth-to-space directions at distances from the Earth less than  $2 \times 10^6$  km from secondary to primary while ensuring protection for in-band FS/MS and for radioastronomy service in the adjacent band 15.35-15.4 GHz. Upgrading of the allocation of the frequency band 14.8-15.35 GHz to the SRS shall not claim protection from the aeronautical mobile service (AMS) and from the FS in the frequency band 14.8-15.35 GHz.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All documents have been introduced, highlighting that proposals are very different. The Chinese proposal is almost in line with the European Common Proposal from CEPT.

The discussion concentrated first on the protection of the radio astronomy service (RAS). A compromise was proposed by RCC and further discussed in an informal meeting. A satisfying solution for the RAS seems possible.

The main issue remains the protection of the aeronautical mobile service, as the positions are divergent and currently no way forward towards a compromise has been reached.

### **NEXT STEPS**

A solution on the protection of the radio astronomy service is expected at the beginning of week 2. Further discussions on the protection of aeronautical mobile service (AMS) will take place and the CEPT position will be maintained.

## **AGENDA ITEM 1.14 - EESS (PASSIVE) 250 GHZ**

### **Sub Working Group 5A3 (Ahmad AMIN, UAE)**

*to review and consider possible adjustments of the existing frequency allocations or possible new primary frequency allocations to the Earth exploration-satellite service (passive) in the frequency range 231.5-252 GHz, to ensure alignment with more up-to-date remote-sensing observation requirements, in accordance with Resolution 662 (WRC-19)*

### **CEPT POSITION**

CEPT supports to cover relevant requirements of passive microwave sensor measurements within the frequency range 231.5-252 GHz with frequency allocations to EESS (passive) without unduly constraining the other primary services currently allocated in this frequency range, specifically:

- In line with the scientific observation requirements identified so far, CEPT supports a new primary allocation to the EESS (passive) in the frequency bands 239.2-242.2 GHz and 244.2-247.2 GHz;
- In order to avoid undue constraints to the primary services to which the bands 239.2-242.2 GHz and 244.2-247.2 GHz are currently allocated and subject to the outcome of the relevant sharing and compatibility studies with the services to which these and the adjacent bands are already allocated, CEPT is also proposing a shift of existing allocations to the FS and MS in the frequency band 239.2-241 GHz into the frequency band 235-238 GHz;
- In order to ensure that there will be no potential future impact to FS and MS in the frequency band 235 - 238 GHz, CEPT proposes to limit the existing allocation to EESS (passive) in this frequency band for use by limb sounding passive sensors only.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

Currently all six regional organisations have a common position to propose new allocations to the EESS (passive) in the bands 239.2-242.2 and 244.2-247.2 GHz, while Mexico proposed No Change and raised questions that will need to be answered appropriately so that they can waive their opposition. USA proposed an additional footnote which in practice allocates the EESS (passive) on a secondary basis, as protection from the radiolocation services shall not be claimed. However, there is no current or planned use of the radiolocation service. All the regional organisations stated that such an approach is not acceptable, particularly to CEPT

All the regional organisations propose to move the fixed and the mobile services allocations to the band 235-238 GHz. However, there are differing views on the footnote text. CITELE, APT and CEPT are proposing the B1 Method from the CPM Report while ASMG, ATU and RCC are supporting the B3 Method.

### **NEXT STEPS**

This agenda item is converging towards a compromise as follows:

- New allocations to the EESS (passive) in the bands 239.2-242.2 and 244.2-247.2 GHz (as in the ECP),
- CPM Method B2 version of the footnote, according to which EESS (passive) shall not claim protection from FS and MS.

## AGENDA ITEM 1.15 - GSO ESIM KU-BAND

### Sub Working Group 5B1 (Giselle CREESER, USA)

*to harmonize the use of the frequency band 12.75-13.25 GHz (Earth-to-space) by earth stations on aircraft and vessels communicating with geostationary space stations in the fixed-satellite service globally, in accordance with Resolution 172 (WRC-19)*

### CEPT POSITION

CEPT supports establishing a regulatory framework and technical requirements for operation of earth stations on aircraft and vessels in the frequency band 12.75-13.25 GHz (Earth-to-space) with conditions that protect the services currently allocated in this frequency band and bands adjacent to it, taking into account ECC Decision (19)04.

CEPT considers that earth stations on aircraft and vessels in the frequency band 12.75-13.25 GHz shall operate consistent with the Appendix **30B** procedures, protect the Appendix **30B** allotments in the Plan, assignments in the List and in the new proposed Appendix **30B** ESIM List (if adopted at WRC-23) and respect Resolution **170 (WRC-19)**.

CEPT supports the operation of these earth stations in the territories (air space and territorial waters) of administrations which have given agreement under No. **6.6** of Article 6 of Appendix **30B** and have authorised such operation within their territories. The characteristics of these earth stations should remain in the envelope of notified earth station characteristics.

CEPT supports the application of on-axis (depending on the maximum antenna gain) and off-axis e.i.r.p. density limits for the purpose of the protection of non-GSO FSS systems.

CEPT supports the use of power flux density (PFD) limits on the earth surface for earth stations on aircraft to ensure the protection of Mobile and Fixed Services, and also supports the development of a methodology to verify compliance with PFD limits by GSO earth stations on aircraft or of adequate transitional measures in case WRC-23 could not finalise the methodology.

CEPT is of the view that the notifying administration of the GSO network with which the earth stations on aircraft and vessels communicate should be identifiable to address the potential cases of harmful interference caused by any earth station on aircraft and vessels to fixed and mobile services. This identification could be done thanks to:

- i) the license issued by / authorisation of the administration for the operation of the earth station on aircraft and vessels on its territory;
- ii) the assistance of the flag nation of aircraft/vessel;
- iii) the on-board radio license of the aircraft or vessel equipped with an earth station.

CEPT is of the view that, unless specified otherwise in the Radio Regulations, the receiving part of these earth stations in the associated frequency bands shall not claim protection from terrestrial services having allocations in the same frequency bands and operating in accordance with the Radio Regulations.

### SHORT REPORT, INCLUDING STATUS FOR WEEK 1

Sub Working Group 5B1 finalised the introduction of inputs. Annexes to the draft new Resolution were discussed and offline groups were formed on the minimum distance for maritime-ESIM and pfd mask and methodology led by the CEPT coordinator and Papua New Guinea, respectively. Joint discussions were held with agenda item 1.16 on responsibilities of administrations in the case of unacceptable interference. During

discussions, general concerns were raised by an administration on the unresolved issues under this agenda item.

#### **NEXT STEPS**

Continue discussions on the draft new Resolution in close co-operation with the work under agenda item 1.16, when applicable.

## AGENDA ITEM 1.16 - NGSO ESIM KA-BAND

### Sub Working Group 5B2 (Mario NERI, France)

*to study and develop technical, operational and regulatory measures, as appropriate, to facilitate the use of the frequency bands 17.7-18.6 GHz, 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) by non-geostationary fixed-satellite service earth stations in motion, while ensuring due protection of existing services in those frequency bands, in accordance with Resolution 173 (WRC-19)*

### CEPT Position

CEPT supports the development of a regulatory framework for the operation of aeronautical and maritime ESIMs communicating with non-GSO satellite systems in the FSS in the frequency bands 17.7-18.6 GHz, 18.8 - 19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space).

CEPT also supports the operations of Land ESIMs in the frequency bands above and recognizes that they are subject to national regulations. Such operations shall not cause unacceptable interference to terrestrial services in neighbouring countries.

CEPT supports that the technical and operational requirements for the use of non-GSO ESIM shall ensure the protection of GSO networks and other services operating in the same frequency bands and in adjacent bands:

- CEPT is of the view that the protection of GSO networks in the fixed-satellite service operating in the frequency bands 17.8-18.6 GHz, 19.7-20.2 GHz, 27.5-28.6 GHz and 29.5-30 GHz from non-GSO ESIM can be achieved by requiring that links involving non-GSO ESIM comply with epfd limits referred to in Nos. **22.5C**, **22.5D** and **22.5F** and that the methodology included in Recommendation ITU-R S.1503 for determination of compliance with epfd limits in Article 22 is applicable to ESIM communicating with non-GSO FSS systems
- CEPT is of the view that to protect GSO networks – in those bands where epfd limits do not apply - and non-GSO systems in the FSS:
  - non-GSO ESIM characteristics shall remain within the envelope characteristics of typical earth stations associated with the non-GSO satellite system with which the ESIM communicates;
  - non-GSO ESIM shall not cause more interference and shall not claim more protection than typical earth stations in this non-GSO system;
  - the operation of non-GSO ESIM shall comply with the coordination agreements obtained following the application of provisions under No. **9.11A**.

CEPT supports that the technical and operational requirements for the use of non-GSO ESIM shall ensure the protection of fixed and mobile services with allocations in the frequency bands considered in this agenda item:

- CEPT is of the view that non-GSO ESIM operating in the frequency bands 17.7-18.6 GHz and 18.8-19.3 GHz (space-to-Earth) shall not claim protection from stations in the fixed and mobile services operating in the same frequency bands in accordance with the Radio Regulations;
- CEPT supports the use of PFD (power flux density) limits on the Earth's surface for aeronautical ESIMs to ensure the protection of fixed and mobile services. CEPT supports also the use of the methodology under development to examine compliance with the pfd limits by non-GSO aeronautical ESIM or transitional measures in case WRC-23 could not agree on the methodology;
- CEPT supports the applicability of the limits contained in Annex 3 to Resolution **169 (WRC-19)** to aeronautical and maritime ESIMs communicating with non-GSO systems operating in the frequency band 27.5-29.1 GHz; such ESIMs shall not cause unacceptable interference to fixed and mobile services operating in the same frequency band;
- CEPT supports the use of the limits contained in Annex 3 to Resolution **169 (WRC-19)** to protect stations in the fixed and mobile services operating in the frequency band 29.5-30 GHz on the entire territories of administrations mentioned in No. **5.542**.



- CEPT is of the view that the notifying administration of the non-GSO system with which the ESIMs communicate should be identifiable to address the potential cases of harmful interference caused by any ESIM to fixed and mobile services. This identification could be done thanks to:
  - i) the license issued by / authorisation of the administration for the operation of the ESIM on its territory;
  - ii) the assistance of the flag nation of aircraft/vessel;
  - iii) the on-board radio license of the aircraft or vessel equipped with the ESIM.

CEPT supports the protection of EESS (passive) sensors in the frequency band 18.6-18.8 GHz through an unwanted emission pfd limit over the oceans of -118 dBW/m<sup>2</sup>/200 MHz for MEO FSS satellites and -110 dBW/m<sup>2</sup>/200 MHz for LEO FSS satellites communicating with aeronautical and maritime ESIM. In addition, CEPT supports that no specific measure is required for non-GSO systems operating in LEO orbits that make use of frequency reuse schemes employing at least three colours.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All the input contributions were presented. Proposals from APT presented various options, either as multi-country proposals or submissions by individual countries. None of the proposals were in favour of a firm No Change but three of them highlighted that if consensual solutions to the open points could not be found, the proponents (ASMG, Iran, Korea) would support Method A of the CPM Report (No Change).

General views were expressed on the open points (responsibility of administrations, interference management, network control and monitoring centre, switching facilities. The chairs of Sub Working Groups 5B1 and 5B2 initiated a document to address the open points that are common to the agenda items 1.15 and 1.16. Up to now, only the topic on responsibilities of the different administrations involved (notifying administration of the satellite system, authorising administration, affected administration) has been discussed and although the progress is slow, the result seems promising. All the regions seem to converge on a single view, except CITEL where internal consultation is still ongoing.

### **NEXT STEPS**

Continue the discussion on the remaining open points mentioned above and also on some details related to the technical conditions to protect incumbent services. To address these last matters, drafting groups (common to 1.15 and 1.16) were created on technical provisions for maritime ESIMs and on the methodology for pfd verification. Protection of EESS (passive) and Annex 4 on the capabilities of ESIMs have not yet been addressed.

## AGENDA ITEM 1.17 - INTER-SATELLITE LINKS

### **Sub Working Group 5B3 (Samuel BLONDEAU, Luxembourg)**

*to determine and carry out, on the basis of ITU-R studies in accordance with Resolution 773 (WRC-19), the appropriate regulatory actions for the provision of inter-satellite links in specific frequency bands, or portions thereof, by adding an inter-satellite service allocation where appropriate.*

### **CEPT POSITION**

CEPT supports the operation of satellite-to-satellite links under a new inter-satellite service allocation in the frequency bands 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz, under conditions to ensure the protection of existing services in the same frequency bands and adjacent bands.

CEPT supports that the introduction of satellite-to-satellite transmissions must ensure the same level of protection for GSOs and non-GSOs as currently provided in the RR and must not impose new constraints on GSOs and non-GSOs to protect satellite-to-satellite links from interference.

CEPT supports that the introduction of satellite-to-satellite transmissions must ensure the same level of protection for terrestrial services as currently provided in the RR and must not impose new constraints on terrestrial services to protect satellite-to-satellite links from interference. CEPT does not support establishing a pfd mask to protect secondary terrestrial services operated in conformity with No. **5.542**.

CEPT supports a NOC for the 11.7-12.7 GHz frequency band.

CEPT supports an ISS allocation. The hard limits or coordination procedures to protect terrestrial services and/or other satellite networks/systems will not be tied to the type of allocation.

CEPT supports a limitation to space research, space operation and Earth exploration-satellite applications and also transmissions of data originating from industrial and medical activities in space.

CEPT supports the operations under the “expanded cone” concept of operations, limited to the LEO-GSO links.

CEPT supports the development of provisions where no additional coordination would be required for the user and service provider space stations if satellite-to-satellite emissions fall within the envelope of the operational characteristics of the service provider.

For the protection of GSO systems, CEPT supports a pfd approach in the epfd bands for NGSO service providers, and a under the envelope approach for coordinated bands (for both NGSO and GSO service providers).

For the protection of non-GSO systems, CEPT supports the development of hard limits in the bands 19.3-19.7 GHz and 27.5-30 GHz.

CEPT proposes that space stations that plan satellite-to-satellite transmissions should be governed by the following preliminary guiding principles:

- 1) Satellite-to-satellite link transmissions will comply with the same directionality indicators as in the existing FSS allocations (Earth-to-space = from user space station to service provider space station, space-to-Earth = from service provider space station to user space station);
- 2) Non-GSO user space stations will operate in a manner that should resemble typical Earth stations of the FSS service provider system;

- 3) The equivalent power flux-density,  $\text{epfd}_{\uparrow}$ , produced at any point in the geostationary-satellite orbit by emissions from all combined operations of inter-satellite and typical Earth station transmissions shall not exceed the limits given in Table 22-2;
- 4) The equivalent power flux-density,  $\text{epfd}_{\downarrow}$ , at any point on the Earth's surface visible from the transmitting satellite system, produced by emissions from all the space stations of the non-geostationary-satellite system shall not exceed the limits given in Tables 22-1A to 22-1E, where applicable;
- 5) The higher altitude to lower altitude link transmissions in 18.1-18.6 GHz and 18.8-20.2 GHz from the GSO or non-GSO FSS service provider space station to the non-GSO user space station would be identical in technical characteristic to the transmissions from GSO or non-GSO service providers to any ground-based user in the service provider's network.
- 6) CEPT supports the protection of EESS (passive) sensors in the frequency band 18.6-18.8 GHz through an unwanted emission pfd limit over the oceans of  $-118 \text{ dBW/m}^2/200 \text{ MHz}$  for MEO satellites and  $-110 \text{ dBW/m}^2/200 \text{ MHz}$  for LEO satellites communicating with non-GSO space stations. In addition, CEPT supports that no specific measure is required for non-GSO systems operating in LEO orbits that make use of frequency reuse schemes employing at least three colours.

## SHORT REPORT, INCLUDING STATUS FOR WEEK 1

Consensus is being reached on ISS allocation in Ka band and No Change in Ku band. Alongside the main group addressing the Draft New Resolution, three sub-groups are looking into protection of terrestrial service, NGSO satellites and GSO satellites. RCC proposes coordination between inter-satellite services, which CEPT could consider acceptable if a satisfactory process is identified. CITELE proposes a 150 km protection zone around feeder links in the 19.3-19.7 GHz band, which CEPT could consider acceptable if CEPT's needs are met on other subtopics. ASMG proposes a 80-100° inclination limitation in the 29.1-29.5 GHz, which CEPT could consider acceptable if CEPT's needs are met on other subtopics. RCC demands a possibility to exclude a territory from the area of service, in support to their proposal for a new agenda item, however this is out of scope of this agenda item which relates to inter-satellite service.

## NEXT STEPS

Agreeing with other regions on:

- The layout of the protection of terrestrial services,
- The wording regarding GSO protection compliance verifications by the ITU BR,
- The values regarding NGSO protection.

Promoting the CEPT view that:

- Inter-satellite can be secondary without creating an "extra secondary status" in 29.5-30 GHz,
- Expanded Cone is cost-efficient for governmental use for disaster relief,
- Possibility for exclusion of a territory by an administration on the basis of a future agenda item is not sustainable.

## **AGENDA ITEM 1.18 - MSS DATA COLLECTION**

### **Sub Working Group 5B4 (Jennifer MANNER, USA)**

*to consider studies relating to spectrum needs and potential new allocations to the mobile-satellite service for future development of narrowband mobile-satellite systems, in accordance with Resolution 248 (WRC-19)*

### **CEPT POSITION**

CEPT supports “No Change” to the Radio Regulations for the frequency bands 1695-1710 MHz, 2010-2025 MHz, 3300-3315 MHz, and 3385-3400 MHz.

CEPT considers further the possibility for a global allocation for narrowband MSS to be addressed by WRC-27.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All input documents were introduced and all regions are in favour of method A (No Change) in the CPM Report.

A general consensus has been reached, however Canada requested some more time for consideration.

### **NEXT STEPS**

The output document will be presented to Working Group 5B for their consideration.

## **AGENDA ITEM 1.19 - FSS 17 GHZ**

### **Sub Working Group 5B5 (Luciana FERREIRA, Brazil)**

*to consider a new primary allocation to the fixed-satellite service in the space-to-Earth direction in the frequency band 17.3-17.7 GHz in Region 2, while protecting existing primary services in the band, in accordance with Resolution 174 (WRC-19);*

### **CEPT POSITION**

CEPT supports a new FSS (space-to-Earth) allocation in Region 2 in the frequency band 17.3-17.7 GHz, which facilitates the use of spectrum available to networks and systems in the FSS across Regions.

CEPT also supports harmonisation in Regions 1 and 2 of the provisions that apply between FSS networks in this frequency band.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All the inputs have been introduced and the parts of the text that were similar in all proposals were approved.

It was decided to discuss offline the limitation of the new allocation to the fixed-satellite service only for GSO networks. This proposal is supported by Iran, China, Russia and APT.

### **NEXT STEPS**

Continue the offline discussion on including the use of spectrum for NGSO systems in the new fixed-satellite service allocation.

## **AGENDA ITEM 2 - RECS INCORPORATED BY REFERENCE**

### **Sub Working Group 6A1 (Keiko MORI, Japan)**

*to examine the revised ITUR Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with further resolves of Resolution 27 (Rev.WRC-19), and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in resolves of that Resolution*

### **CEPT Position**

CEPT supports updating the reference(s) in relevant RR provisions of the following ITU-R Recommendation(s): from ITU-R M.585-8 to M.585-9.

CEPT resumes examining the compliance with the principles of Annex 1 to Resolution 27 (Rev.WRC-19) of the references to ITU-R Recommendations in the Radio Regulations.

CEPT supports update of the RR Volume 4 cross-reference list.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

Work has started based on the principles of Resolution 27 (Rev. WRC-19). Input documents have been introduced and discussion is ongoing at higher level.

### **NEXT STEPS**

Continue discussion.

## **AGENDA ITEM 4 - REVIEW OF RES/RECS**

### **Sub Working Group 6A1 (Keiko MORI, Japan)**

*in accordance with Resolution 95 (Rev. WRC 19), to review the Resolutions and Recommendations of previous conferences with a view to their possible revision, replacement or abrogation;*

#### **CEPT Position**

CEPT encourages the constant review of Resolutions and Recommendations from previous conferences and will follow activities, in particular of ITU, associated with this effort.

- CEPT proposes to suppress Resolutions: RES 75 (Rev.WRC-12), RES 160 (WRC-15), RES 161 (WRC-15)
- CEPT proposes to modify Resolutions: RES 49 (Rev.WRC-19), RES 85 (WRC-03), RES 99 (Rev.WRC-19), RES 140 (Rev. WRC-15), RES 163 (WRC-15), RES 343 (WRC-97), RES 608 (Rev. WRC-19), RES 731 (Rev. WRC-19), RES 762 (WRC-15), RES 804 (Rev. WRC-19)
- CEPT proposes to modify Recommendations: REC 34 (Rev. WRC-12).

#### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

Work has started based on Resolution 95 (Rev. WRC-19). Input documents have been introduced and discussion is ongoing. A drafting group on Resolution 85 (WRC-03) has been established.

#### **NEXT STEPS**

Continue discussion.

## AGENDA ITEM 7 - SATELLITE PROCEDURES (RES. 86)

### Sub Working Group 5C1 (Jack WENGRYNIUK, USA)

*to consider possible changes, in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference, on advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks, in accordance with Resolution **86 (Rev.WRC-07)**, in order to facilitate the rational, efficient and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit;*

### CEPT POSITION

CEPT supports retaining the current process of continuing evolution at successive WRCs of the regime governing space services. CEPT also favours a stable and predictable regulatory framework for efficient use of spectrum and orbit resources. CEPT intends to develop specific positions susceptible to bring improvement to the regulatory process.

CEPT favours the review of any RR provision which can bring accurate solutions to specific detected inconsistencies and develop new improved provisions with emphasis on solving the most urgent issues, i.e. well characterised issues whose improvement is urgent and impacting.

### TOPIC A: TOLERANCES FOR NON-GSO ORBITAL CHARACTERISTICS

#### CEPT POSITION ON TOPIC A

CEPT supports the development of the definition of tolerances limited to the orbital characteristics below of non-GSO space stations in FSS, BSS and MSS identifying a “notified orbital plane”:

- the inclination of the orbital plane;
- the altitude of the apogee of the orbit of the space station;
- the altitude of the perigee of the orbit of the space station, except in the case of HEO orbits.

CEPT supports the development of these tolerances only for FSS, BSS and MSS systems subject to Resolution **35 (WRC-19)** in the context of ITU regulatory procedures such as BIU, BBIU and the milestone-based approach. In the absence of such tolerances, it is unclear whether the requirements of Resolution **35 (WRC-19)** are met.

CEPT supports, except under No. **11.44C** and **11.49.2**, that tolerances could be temporarily exceeded for a short period of time to permit rephasing of satellites in an orbit-plane after a launch of new non-GSO space stations.

CEPT supports appropriate regulatory consequences under Nos. **11.44C**, **11.49.2** and **11.51** for frequency assignments to non-GSO space stations that do not maintain these to-be-developed orbital tolerances.

CEPT does not support methods permitting notifying administrations to self-declare the expected orbital altitude and inclination variations.

CEPT supports defining orbital tolerances such that the operation of non-GSO systems within those tolerances does not adversely impact the interference environment of other networks, systems and services.



CEPT supports for all networks to align their notified orbital characteristics with deployed orbital characteristics without regulatory implication subject to a maximum difference allowed between the notified and deployed orbital characteristics of the satellite system.

CEPT supports an accurate definition of a circular/elliptical orbit through the parameters required in Appendix 4, namely the distance between the perigee or apogee and the centre of the Earth.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

The Sub Working Group 5C1 reviewed all input contributions and started to discuss the different options. No significant progress has been achieved for the time being.

### **NEXT STEPS**

The meeting should discuss and agree on the principles associated with tolerances

### **TOPIC B: NON-GSO BIU POST-MILESTONE PROCEDURE**

#### **CEPT POSITION ON TOPIC B**

CEPT supports the adoption of a new Resolution to replace resolves 19 of Resolution **35 (WRC-19)** at WRC-23 suppressing resolves 19 of Resolution 35 (WRC-19) and leaving the rest of the Resolution **35 (WRC-19)** as is otherwise.

CEPT supports a decision at this WRC to give administrations a more stable regulatory framework to adapt their launch strategies to these new rules after their 3rd Milestone, which will take place mainly from 2027 onwards.

CEPT supports a regulatory solution aligning the post milestone procedures in this new Resolution with No. 11.49 and Resolution **35 (WRC-19)** allowing some operational flexibilities:

Possibility to operate a minimum 95% of the number of satellites notified in the MIFR without regulatory impact for constellations with more than 50 satellites.

Possibility to operate less than 95% of the number of satellites notified in the MIFR for a maximum period of 3 years without regulatory impact for constellations with more than 50 satellites. (A suspension process analogue to the GSO case is proposed.)

Considering the process to duly notify the Bureau based on similar regulatory mechanism as in **No. 11.49**

CEPT supports a reduction in the number of satellites notified in the MIFR if the deployed number of satellites falls below 95% of that which was notified in the MIFR for a continuous period exceeding 3 years for constellations with more than 50 satellites.

CEPT supports a threshold below 95% for constellations with less than or equal to 50 satellites.

CEPT considers that the application of No. **13.6** by the BR is not an adequate solution for Topic B.

## SHORT REPORT, INCLUDING STATUS FOR WEEK 1

Documents haven't been introduced yet.

### NEXT STEPS

To introduce and review different proposals.

## TOPIC C: PROTECTION OF GSO MSS FROM NON-GSO EMISSIONS IN 7/8 AND 20/30 GHZ

### CEPT POSITION ON TOPIC C

CEPT supports the identification and definition of criteria, extensions and addition of provisions in order to quantify the protection of GSO networks operating in the MSS from interference caused by non-GSO networks or systems operating in the same frequency bands 7250-7750 MHz (space-to-Earth), 7900-8025 MHz (Earth-to-space), 20.2-21.2 GHz (space-to-Earth) and 30-31 GHz (Earth-to-space) and in identical directions.

More specifically, CEPT supports:

- the modification of footnote RR No. **5.461** to exempt agreements under RR No. **9.21** regarding GSO networks in the MSS in the frequency bands 7250-7300 MHz and 7300-7375 MHz with respect to non-GSO systems for which complete coordination or notification information, as appropriate, are received by the Bureau after 15 December 2023.
- extend the provisions of RR No. **22.2** via an additional Article No. **22.2bis** to GSO networks in the MSS in the concerned frequency bands.
- introducing new RR Appendix 4 data items for assignments to non-GSO systems in the above-mentioned frequency bands to better facilitate analysis of potential interference for victim GSO networks.

## SHORT REPORT, INCLUDING STATUS FOR WEEK 1

All input contributions were presented. Offline work is ongoing to assess how proposals based on Methods C2 and C3 of the CPM Report could be further converged. All regions have shown a positive attitude in identifying a common solution for this agenda item.

### NEXT STEPS

Establish convergence on the current proposals, mainly based on Methods C2 (Alternative 2) and C3 of the CPM Report.

## **TOPIC D1: MODIFICATIONS TO APPENDIX 1 TO ANNEX 4 OF APPENDIX 30B**

### **CEPT POSITION ON TOPIC D1**

CEPT supports correcting the values of the coordination arc in the aggregate C/I calculation in Appendix 1 to Annex 4 of RR Appendix **30B** based on the coordination arc reductions decided at WRC-19.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

There was consensus on the proposed solution which was agreed by the plenary.

### **NEXT STEPS**

None – work completed.

## **TOPIC D2: NEW APPENDIX 4 PARAMETERS FOR RECOMMENDATION ITU-R S.1503 UPDATES**

### **CEPT POSITION ON TOPIC D2**

CEPT supports making modifications to Appendix 4 in consequence of the revision to Recommendation ITU-R S.1503 agreed at ITU-R SG 4 in July 2023 and sent for formal adoption and approval.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

Input contributions were introduced in Sub Working Group 5C. The additional data elements were agreed with the exception of the alpha table which was in the CPM Report but was not agreed in the revision to Recommendation ITU-R S.1503. A working document is being prepared by the chair.

### **NEXT STEPS**

Once available, the working document will be reviewed to ensure it is consistent with the European Common Proposal.

## **TOPIC D3: BR REMINDERS FOR BIU AND BBIU**

### **CEPT POSITION ON TOPIC D3**

CEPT supports to establish reminders for confirming the bringing into use or bringing back into use of a satellite network or system under Nos. **11.44B, 11.44C, 11.44D** and **11.44E**.

## **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

There was consensus on the proposed solution which was agreed by the plenary.

### **NEXT STEPS**

None – work completed.

## **TOPIC E: IMPROVED PROCEDURES UNDER APPENDIX 30B FOR NEW ITU MEMBER STATES**

### **CEPT POSITION ON TOPIC E**

CEPT supports the right of every ITU Member State to obtain a national allotment in the Plan in line with the objective of the Appendix **30B**.

CEPT supports to grant new ITU Member States the same conditions as those granted to administrations having no assignments in the Appendix **30B** List, or assignments listed under 6.1, as adopted in Resolution **170 (WRC-19)**, in addition to the procedure for the addition of a new allotment to the Plan for a new ITU Member State, already contained in Article 7 of Appendix **30B** of the RR. In addition, CEPT supports to add a new Annex 7 to Appendix **30B** of the RR to facilitate the addition of a new allotment to the Plan for a new Member State of the Union.

CEPT encourages new ITU Member States and the resulting affected administrations to actively undertake and cooperate in coordination discussions.

## **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All documents have been introduced and a consolidated document with all the proposals has been produced but not discussed yet. After some offline discussions there seem to be agreement on the CEPT proposed way forward.

### **NEXT STEPS**

Follow discussions and support the CEPT proposal.

## **TOPIC F: EXCLUDING UPLINK SERVICE AREA IN APPENDIX 30A FOR REGIONS 1 & 3 AND IN APPENDIX 30B**

### **CEPT POSITION ON TOPIC F**

Considering high level of completed coordination in Resolution 559 (WRC-19) between administrations, CEPT supports bilateral coordination solutions or national licensing conditions to address potential encountered problems on a case-by-case basis.

CEPT considers that the current regulatory provisions are adequate to address this Topic and supports No Changes to the Radio Regulations.

CEPT notes that, as an example, aligning the coverage area with the service area is not always technically feasible.

CEPT encourages administrations involved in Resolution **559 (WRC-19)** coordinations to make utmost efforts to communicate with requesting administrations and to timely reply in order to complete coordination.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All documents have been introduced.

### **NEXT STEPS**

Consolidate proposals in a single document. Follow discussions and support the CEPT proposal.

## **TOPIC G: RESOLUTION 770 (WRC-19) GSO PROTECTION FROM SINGLE ENTRY NON-GSO IN Q/V BANDS**

### **CEPT POSITION ON TOPIC G**

CEPT supports to amend Resolution **770 (WRC-19)** by suppressing Annex 2 from Resolution **770 (WRC-19)** and move it to a new recommendation ITU-R S.2157 to be incorporated by reference in Resolution **770 (WRC-19)**.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All documents have been introduced and a consolidated document with all the proposals has been produced and discussed. All text was agreed except for the proposal to allow the possibility to modify an old filing as soon as the validation software is available. A drafting group was created to address this specific point and an agreement seems to have been reached.

## **NEXT STEPS**

Follow discussions and support the CEPT proposal.

## **TOPIC H: ENHANCED PROTECTION OF APPENDICES 30 AND 30A IN REGION 1 AND 3 AND APPENDIX 30B**

### **CEPT POSITION ON TOPIC H**

CEPT notes that there are several Planned bands initiatives to be discussed at WRC-23 and generally supports the continued protection of Appendices **30** and **30A** and Appendix **30B**.

CEPT does not support to change the current provisions with regards to implicit agreement at WRC-23 but CEPT is willing to consider studying the implications of suppressing provisions with regards to implicit agreement.

CEPT does not support to reduce the EPM degradation tolerance in Appendices **30** and **30A** without any valid technical studies supporting the reasoning behind such a modification.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All documents have been introduced and a consolidated document with all the proposals has been produced but not discussed yet.

## **NEXT STEPS**

Follow discussions and support the CEPT proposal.

## **TOPIC I: SPECIAL ARRANGEMENTS UNDER APPENDIX 30B**

### **CEPT POSITION ON TOPIC I**

CEPT supports a regulatory solution based on a specific agreement, on a voluntary basis, allowing an administration suffering from low reference protection margin for its national allotment in Appendix **30B** due to agreements under § 6.15 to retrieve adequate reference protection margin.

CEPT supports the possibility to sign a specific agreement between an additional system and a national allotment in Appendix 30B permitting the additional system to cover the territory of the national allotment in Appendix **30B** until the bringing into use of this national allotment in Appendix **30B**.

CEPT supports the adaptation of the additional system operations to not create harmful interference and to fully protect the operations of the national allotment with which the specific agreement was signed.

CEPT encourages administrations for which § 6.15 of Appendix **30B** has been applied with respect to a national allotment, to cooperate and consider signing such a specific agreement.

## **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

All documents have been introduced and a consolidated document with all the proposals has been produced and discussed. Discussion on a specific provision (6.15quat) are still on-going and will be finalised after discussion on Topic H which is related to this provision.

## **NEXT STEPS**

Follow discussions and support the CEPT proposal.

## **TOPIC J: MODIFICATIONS TO RESOLUTION 76 (REV.WRC-15)**

### **CEPT POSITION ON TOPIC J**

CEPT supports the modification of Resolution **76 (Rev.WRC-15)** to introduce the concept of “consultation meetings”.

CEPT supports that only the operational satellites of non-GSO systems should be considered to evaluate the aggregate efd levels.

CEPT supports that all administrations are given full visibility of the process.

CEPT supports that the technical work, such as the methodology to be used to evaluate aggregate efd limit compliance, as well as the methodology to adapt the operation of all non-GSO FSS systems operating co-frequency in frequency bands covered in Tables 1A to Table 1D that are taken into account to evaluate the aggregate efd levels, should be developed by the ITU-R as a matter of urgency.

CEPT supports that any amendment to the relevant non-GSO FSS systems mentioned above shall not affect the regulatory status of the affected non-GSO systems, including following any modifications to their published characteristics.

CEPT supports that consultation meetings held under the amended Resolution **76 (WRC-15)** shall not occur before the methodologies above are developed by the ITU-R and made available to the membership or by 1 June 2027, whichever comes first.

CEPT supports that the current regulatory provisions in RR (Article **22.5K** and resolves 2 of Resolution **76 (WRC-15)**) combined with existing ITU-R Recommendations could be used for the interim period until the relevant methodologies needed for the consultation meeting are approved. However, CEPT notes that, in absence of a methodology to calculate the aggregate efd produced by non-GSO FSS systems, the certainty of possible exceedance of the aggregate efd produced by non-GSO FSS systems should be ensured.

## SHORT REPORT, INCLUDING STATUS FOR WEEK 1

A subgroup on the consultation process for aggregate epfd (possible modification of Resolution 76) has been established. Documents were presented but detailed discussions are still to follow. Proposals diverge significantly. It should be noted that this Topic is also related to the proposal under agenda item 10 (Future Agenda) for a new agenda item at WRC-27 on the review of epfd limits.

### NEXT STEPS

Discussions to continue.

## TOPIC K: MODIFICATIONS TO RESOLUTION 553 (REV.WRC-15)

### CEPT POSITION ON TOPIC K

CEPT supports the possibility to apply the special procedure of Resolution **553 (Rev. WRC-15)** again if the requesting administration fails to bring into use a network even if the special procedure of Resolution **553 (Rev. WRC-15)** was previously requested.

CEPT supports the possibility to also apply the special procedure of **Resolution 553 (Rev. WRC-15)** once if the requesting administration has at maximum one network successfully examined under **No. 9.34** and published under **No. 9.38** for the frequency band 21.4-22 GHz and at the same orbital position(s) as the network to which the special procedure is to be applied.

## SHORT REPORT, INCLUDING STATUS FOR WEEK 1

There was consensus on the proposed solution which was agreed by the plenary.

### NEXT STEPS

None – work completed.



## **AGENDA ITEM 8 – REVIEW OF FOOTNOTES**

### **Sub Working Group 6A2 (Stella BANYENZA, Tanzania)**

*to consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution 26 (Rev. WRC-19)*

### **CEPT POSITION**

#### **Issue A – Deletion of country footnotes or country names from footnotes**

CEPT supports administrations taking the initiative to review their footnotes and to propose the deletion of their country names or the deletion of country footnotes, if no longer required.

#### **Issue B – Addition of country names into existing footnotes**

- CEPT is of the view that this agenda item is not intended for adding country names into existing footnotes.
- CEPT is of the view that Conferences may continue to deal with requests to add country names to existing footnotes on a case by case basis, subject to the principle that proposals for the addition of country names to existing footnotes can be considered but their acceptance is subject to the express condition that there are no objections from the affected countries.

#### **Issue C – Addition of new country footnotes**

CEPT is of the view that this agenda item is not intended for addition of new country footnotes and therefore proposals for the addition of new country footnotes which are not related to agenda items of this Conference should not be considered.

#### **Issue D – Availability of proposals**

- CEPT supports Administrations bringing their proposals on Agenda item 8 to the attention of other Administrations with a view to avoid any potential difficulties well before a WRC;
- CEPT is of the view that the current practice on establishment of submission deadlines should be kept by the WRC-23 with regard to additional proposals for deletion of country names from footnotes and for addition of country names to existing footnotes.

#### **Issue E – Possible revision of Resolution 26 (Rev. WRC-19)**

CEPT supports retaining Resolution 26 (Rev. WRC-19).

CEPT proposes for WRC-23 no change to Resolution 26 (Rev. WRC-19).

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

Some countries intend to include their country names in footnotes. The conference must set the deadlines for the acceptance of the different types of contributions:

- Contributions for inclusion in a footnote for which an agenda item exists;
- Contributions for inclusion in a footnote for which no agenda item exists;
- Contributions on changes to the footnote text

Committee 6 has already decided that these topics should not be discussed in Working Group 6A.

**NEXT STEPS**

Discussions to continue.

**AGENDA ITEM 9.1 - REPORT OF THE DIRECTOR**

*to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention on the activities of the ITU Radiocommunication Sector since WRC-19*

## AGENDA ITEM 9.1 TOPIC A - SPACE WEATHER SENSORS

### Sub Working Group 5A4 (Boris SOROKIN)

*In accordance with Resolution 657 (Rev. WRC-19), review the results of studies relating to the technical and operational characteristics, spectrum requirements and appropriate radio service designations for space weather sensors with a view to describing appropriate recognition and protection in the Radio Regulations without placing additional constraints on incumbent services*

### CEPT POSITION

CEPT supports that the following definition for space weather is included in Article 1, section VIII, of the Radio Regulations:

*space weather: natural phenomena, mainly originating from solar activity and occurring beyond the major portion of Earth's atmosphere that impact Earth's environment and human activities.*

CEPT also supports the:

- Designation of space weather observations (active and receive-only) as an application of the MetAids service, operated under a subset of this service called MetAids (space weather) through Article 4 as follows:  
*Space weather sensor systems, may operate under the meteorological aids service (space weather) allocations.*
- Draft New WRC Resolution on the importance of MetAids (space weather) service applications, in which the definitions of active and receive-only space weather sensors will be introduced.

In addition, CEPT supports the further processing of the related work under an agenda item of WRC-27 - see preliminary agenda item 2.6 in Resolution 812 (WRC-19), in order to study the appropriate protection of receive-only space weather observations in the priority frequency bands which were defined for this purpose:

- 27.5-28.0 MHz;
- 37.5-38.25 MHz;
- 51.0-54.0 MHz;
- 73.0-74.6 MHz;
- 153.0-154.0 MHz;
- 218.28-248.28 MHz;
- 606.0-614.0 MHz.

Finally, CEPT supports the development of ITU-R Recommendation(s) to provide the relevant protection criteria for receive-only space weather sensors.

### SHORT REPORT, INCLUDING STATUS FOR WEEK 1

All input contributions were introduced.

For further progress, the contributions have been split into two options:

- Option 1 - No Change. This proposal from USA, APT and China is based on the principle that no regulatory changes should be made under a 9.1 agenda item;
- Option 2 - changes to Article 1 and 4 of the Radio Regulations including a new WRC Resolution on the importance of space weather observations. This proposal is supported by CEPT, ASMG, RCC, ATU, Brasil, Canada, Ecuador and Jamaica).

It has been decided, in a first step, to consolidate the inputs for Option 2, noting that the deviations between the contributions supporting this option are small. Compared to the European Common Proposal, RCC introduced three additional aspects in the Draft New WRC Resolution, which cover the necessity of a follow-on WRC-27 agenda item on space weather and constraints on recordings in the MIFR of space weather sensor stations. The general idea behind these additions can be supported by CEPT, and offline discussions are ongoing. Although APT proposes No Change under AI 9.1, topic a, they requested to include in Article 1 and 4 elements from their contributions under agenda item 10 (Future agenda).

## **NEXT STEPS**

Consolidation of Option 2:

- Finalise offline discussions with RCC on the additional aspects in the Draft New Resolution on the importance of space weather sensors
- Discuss input from APT

Discussion/Negotiation between option 1 and 2, and try to find a consolidated approach with APT, China and USA to support regulatory changes under AI 9.1, topic a.

## AGENDA ITEM 9.1 TOPIC B - AMATEUR-RNSS AT 1300 MHZ

### **Sub Working Group 4B7 (Dale HUGHES, Australia)**

*review the amateur service and the amateur-satellite service allocations in the frequency band 1 240-1 300 MHz to determine if additional measures are required to ensure protection of the radionavigation-satellite service (space-to-Earth) operating in the same band in accordance with Resolution 774 (WRC-19)*

### **CEPT POSITION**

CEPT supports the protection of the RNSS.

CEPT supports the development of a new ITU-R Recommendation based on the ITU-R Reports to provide guidance towards the implementation of technical and operational measures for the continued use of the frequency band 1240-1300 MHz by the Amateur and Amateur-satellite services in accordance with the RR in order to protect the RNSS.

CEPT supports that the above mentioned measures to be applied on the use of secondary Amateur and Amateur-satellite services should be based on the results of co-existence studies and measurement campaigns.

CEPT considers incorporating by reference the new ITU-R Recommendation developed by ITU-R WP 5A.

CEPT considers the development of a fallback position, e.g. a new WRC Resolution, in case the Recommendation ITU-R M.[AS\_GUIDANCE] is not adopted in due time for WRC-23.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

CEPT supports the incorporation by reference of the Recommendation ITU-R M.2164 which has been recently adopted by the Radio Assembly.

There was strong opposition from CITELE and APT as these two Regions supported No Change.

There were several proposals for a new footnote. However, the proposed text does not go beyond what is currently in the Radio Regulations (secondary status of the amateur and amateur-satellite service).

The footnote proposed by CEPT incorporates by reference the technical values defined in the Recommendation.

There was no consensus on the footnote.

Some administrations proposed to work on a Resolution. Although this is not the CEPT position, CEPT agreed to discuss a potential Resolution as a way forward.

### **NEXT STEPS**

Discuss a potential Resolution as a way forward.

## AGENDA ITEM 9.1 TOPIC C - FS IMT

### Committee 4 (Hiroyuki ATARASHI, Japan)

*study the use of International Mobile Telecommunication systems for fixed wireless broadband in the frequency bands allocated to the fixed service on a primary basis, in accordance with Resolution 175 (WRC-19)*

### CEPT POSITION

CEPT supports suppression of Resolution 175 (WRC-19) and opposes any other changes to the Radio Regulations in response to WRC-23 Agenda item 9.1, topic c including any new or revised Resolution on this topic.

CEPT is further of the view that:

- the usage of IMT systems in the fixed service is not compliant with the Radio Regulations;
- the work under this topic should focus on consideration of broadband fixed wireless access (BFWA) that use IMT technologies under the existing regulatory framework of the FS;
- given the existing provisions of the Radio Regulations and taking a technology neutral approach there is no need to consider/study specific frequency bands under this topic;
- BFWA that use IMT technologies as well as other technologies in the frequency bands allocated to the fixed service can be adequately addressed, if necessary, through an update of appropriate existing ITU-R Recommendations/Reports/Handbooks. The development of new ITU-R Recommendations/Reports should only be considered, if necessary, based on the outcome of a review of existing ITU-R deliverables;
- discussions on fixed wireless broadband applications that use IMT technologies, as any other technologies, should take place in ITU-R WPs 5A and 5C (not other ITU-R WPs) to avoid fragmentation of work and to ensure efficient working within ITU-R.

### SHORT REPORT, INCLUDING STATUS FOR WEEK 1

CEPT proposed the early agreement which has been reached at Plenary level for No Change to the Radio Regulations apart from suppression of Resolution 175 (WRC-19) under this topic. This is an early good outcome achieved for CEPT in line with the European Common Proposal.

### NEXT STEPS

None – work completed

## AGENDA ITEM 9.1 TOPIC D - EESS (PASSIVE) 37 GHZ

### Sub Working Group 5A5 (Ted BERMAN, USA)

*Protection of EESS (passive) in the frequency band 36-37 GHz from non-GSO FSS space stations (See WRC-19 Document 535, 2nd section of the Annex)*

### CEPT POSITION

CEPT supports the protection of EESS (passive) sensors operating in the frequency band 36-37 GHz from NGSO FSS systems operating in the band 37.5-38 GHz:

- CEPT supports an unwanted emission power limit of -31 dBW/100 MHz in the band 36-37 GHz for FSS non-GSO space stations operating at an apogee altitude above 407 km and below 2000 km in the frequency band 37.5-38 GHz for the protection of EESS (passive) cold calibration channels;
- CEPT supports the inclusion of that unwanted emission power limit in a new footnote of Article 5 of the Radio Regulation during WRC-23;
- CEPT supports the inclusion the inclusion of items A.25 in Annex 2 of Appendix 4 regarding the compliance with the unwanted emission limit defined in a proposed new footnote.

### SHORT REPORT, INCLUDING STATUS FOR WEEK 1]

Currently two options are discussed;

- No Change (USA, Ecuador, Mexico and Tonga)
- Change of Article 5 (CEPT, RCC, Australia and China) with the inclusion of the following Footnote:

*“5.A91D Non-GSO FSS space stations operating with an apogee altitude above 407 km and below 2 000 km in the frequency band 37.5-38 GHz shall not exceed an unwanted emission e.i.r.p density of -31 dB(W/100 MHz) for angles greater than 71.5 deg. from nadir relative to the FSS satellite in the frequency band 36-37 GHz in order to protect the Earth exploration-satellite service (passive) operating in this band. (WRC-23)”*

The current text under discussion for the footnote differs from that proposed by CEPT and the RCC to provide more flexibility to the fixed-satellite service and ensure the required protection of passive EESS.

USA remarked that no change to the Radio Regulations can be applied under agenda item 9.1, but they seem ready to perform studies and check if the proposed limit could be acceptable.

### NEXT STEPS

Continue the discussion on both options and consider feedback from the USA.



**RESOLUTION 427 (WRC-19)**

**Working Group 4B (Sandra WRIGHT, USA)**

*Updating provisions related to aeronautical services in the Radio Regulations*

**CEPT POSITION**

CEPT proposes for WRC-23 no change to Chapters IV, V, VI and VIII of Volume I of the Radio Regulations.

**SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

Consensus was reached for No Change, and approved at the plenary.

**NEXT STEPS**

None – work completed

## **RESOLUTION 655 (WRC-15)**

### ***Sub Working Group 6A3 (Frank ERNST, Germany)***

Definition of time scale and dissemination of time signals via radiocommunication systems

#### **CEPT POSITION**

CEPT recognises that:

- the general definition of the international reference time scale UTC is provided in Resolution 2 (2018) of the 26th General Conference on Weights and Measures (CGPM), whereas Resolution 4 (2022) of the 27th CGPM determines its future relation with respect to mean solar time UT1;
- UTC is produced by BIPM and its definition is not a task of spectrum regulation;
- the cooperation between BIPM and the ITU-R is settled by their Memorandum of Understanding, signed in 2020.

CEPT will address necessary revisions and amendments regarding Resolution **655 (WRC-15)**.

#### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

Contributions were presented including 4 documents from regional groups (CITEL, APT, CEPT, RCC), two documents from administrations (China, UAE) and an information document from the BIPM.

Most of the contributions are generally in agreement with the CEPT proposal with the exception of the RCC proposal. The divergence with the RCC proposal is based on several points, including date of application of the new expected tolerance between UT1 and UTC.

#### **NEXT STEPS**

A drafting group is planned to be established to develop a document compiling all the contributions submitted to the conference.

## ARTICLE 21 - WRC-19 DOCUMENT 550

### Sub Working Group 4A4 (Michael KRÄMER)

*The applicability of the limit specified in No. 21.5 of the Radio Regulations to IMT stations, that use an antenna that consists of an array of active elements*

### CEPT POSITION

*Note: The term AAS is used here as a shortcut for “stations in the mobile service, including IMT stations, and the fixed service that use an antenna that consists of an array of active elements”*

#### Proposed short-term approach at WRC-23 for notification and verification of AAS in the frequency range 24.45-29.5 GHz

For the purpose of verification of RR No. 21.5 in the notification of stations in the mobile service, including IMT stations, and stations in the fixed service, that use an antenna that consists of an array of active elements in the frequency range 24.45-29.5 GHz, CEPT is of the view that the "power delivered by a transmitter to the antenna of a station" in RR No. 21.5 can be considered as the "total radiated power" (TRP), which is defined as the integral of the power transmitted from all antenna elements in different directions over the entire radiation sphere (noting it is mathematically equivalent to the sum of conducted powers from all internal transmitters, minus ohmic losses).

The limit 8AA  $\leq$  10 dBW for notification of base stations that use an antenna that consists of an array of active elements would remain unchanged. The following other fields would have to be documented in every notification:

- 9G = maximum gain of the AAS
- 8B = 8AA + 9G
- 7AB = necessary bandwidth of the IMT transmission (currently 50, 100, 200 or 400 MHz)

The European Common Proposal proposes to implement the short-term solution at WRC-23 through revisions to RR Article 21, in particular a new provision 21.5B applicable to AAS in the frequency range 24.45-29.5 GHz, and to merge entries in Table 21-2 for the frequency band 24.45-29.5 GHz.

### SHORT REPORT, INCLUDING STATUS FOR WEEK 1

Contributions were introduced, exhibiting the same fundamental disagreements as those expressed during the study cycle (on the metric i.e. single transmitter vs total radiated power (TRP), on the frequency band where the provisions should apply, etc.). In particular, it is noted that Japan, China, Canada and Russia support TRP as the reference metric for the notification field 8AA, while USA and Korea support a metric based on a single transmitter.

### NEXT STEPS

Discussions will continue to address the matter, and offline discussion is invited in order to progress.

## **AGENDA ITEM 9.2 - INCONSISTENCIES IN RADIO REGULATIONS**

### **Sub Working Group 4A1,4A4,4C3,5C2,6A3**

*to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the ITU Convention on any difficulties or inconsistencies encountered in the application of the Radio Regulations*

### **CEPT POSITION**

Based on the Report of the Director of the Radiocommunication Bureau, CEPT gathered difficulties and inconsistencies in the application of the provisions of the Radio Regulations. CEPT prepared its views on these issues as part of the European preparation for the WRC-23 as indicated in Table 1 of the [CEPT Brief](#).

CEPT has developed European Common Proposals on five issues, all relative to Addendum 2 to Doc. WRC23/4:

- 1 “Practice of splitting a non-geostationary satellite system into several filed systems”, as mentioned in para 3.1.4;
- 2 “Harmful interference to receivers in the of the radionavigation satellite service”, as mentioned in para 3.1.7.2;
- 3 “Identification of transmissions of space systems”, as mentioned in para 3.1.8;
- 4 “PFD scaling factor to be applied to non-GSO FSS constellations with 1000 or more space stations operating in the 17.7-19.3 GHz frequency band”, as mentioned in para 3.1.9.2; and,
- 5 “§4.1.24 of Article 4 of Appendices 30 and 30A”, as mentioned in para 3.2.5.1.

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

Only the terrestrial issues have been discussed so far.

With respect to paragraph 3.1.5.2 (“Registration of mobile stations of terrestrial services in the MIFR”), proposals were presented by CEPT, Canada and several comments were received. The issue will be further discussed at a later stage.

With respect to paragraph 3.1.5.1 (“Notification of terrestrial stations on Platform”), RCC raised that this issue should not be part of the BR Director’s Report. The BR explained the difficulties they have encountered. Draft text for the minutes will be drafted and the issue will be reconsidered at a later stage.

### **NEXT STEPS**

Continue the discussion on all the issues under this agenda item.

## **AGENDA ITEM 9.3 - DUE DILIGENCE (RES. 80)**

### **Sub Working Group 5C2 (Jack WENGRYNIUK, USA)**

*to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the ITU Convention on action in response to Resolution **80 (Rev.WRC-07)***

### **CEPT POSITION**

CEPT has prepared its views on these issues as shown in Table 1 of the [CEPT Brief](#).

### **SHORT REPORT, INCLUDING STATUS FOR WEEK 1**

The RRB Report was presented. Issues under item 4.2 related to the implementation of Resolution 59 is practically solved, leading to 41 new countries in the broadcasting-satellite service Plan. Also items 4.3 (linkage between bringing-into-use and recording in MIFR) and most of item 4.4 (extensions & force majeure), and some of 4.6 (issues related to Appendix 30B) were discussed with good progress, leading to some changes in the text, although a final review and confirmation is required for all these items.

### **NEXT STEPS**

Continue discussions on the many other remaining points.

## AGENDA ITEM 10 – FUTURE AGENDA

### Working Group 6B (Geraldo NETO, Brasil)

to recommend to the ITU Council items for inclusion in the agenda for the next world radiocommunication conference, and items for the preliminary agenda of future conferences, in accordance with Article 7 of the ITU Convention and Resolution **804 (Rev. WRC-19)**

### CEPT POSITION

CEPT is supporting the following preliminary agenda items as included in Resolution **812 (WRC-19)** for the Agenda for WRC-27:

- 2.1 - Radiolocation service 275-700 GHz. Resolution **663 (WRC-19)** to be modified;
- 2.2 - Aeronautical and Maritime ESIM. Resolution **176 (WRC-19)** to be modified to cover also NGSO and land ESIM;
- 2.4 - PFD and e.i.r.p. limits for 71-76 GHz/81-86 GHz. Resolution **775 (WRC-19)** to be modified;
- 2.6 - Space weather sensors. Follow-up on Resolution **657 (WRC-19)**;
- 2.8 - Space-to-space links among non-GSO and GSO satellites within MSS. Resolution **249 (WRC-19)** to be modified;
- 2.11 - EESS (Earth-to-space) 22.55-23.15 GHz. Resolution **664 (WRC-19)** to be modified;
- 2.12 - 694-960 MHz removal of limitation of aeronautical mobile. Resolution **251 (WRC-19)** to be modified;
- 2.13 - Low data rate MSS in the frequency bands 1645.5-1646.5 MHz, 1880-1920 MHz and 2010-2025 MHz. Resolution **248 (WRC-19)** to be suppressed. New Resolution to be developed.

CEPT is supporting preliminary agenda item 2.10 (Resolution **812 (WRC-19)**) VHF maritime frequencies in Appendix **18** for the future agenda of WRC-31.

In replacement of preliminary agenda item 2.5 (Resolution **812 (WRC-19)**), CEPT is supporting the following proposals for new agenda items:

- Protection of the EESS (passive) in bands covered by RR No. **5.340** above 86 GHz;
- Protection of RAS above 76 GHz from active space services: revision of Resolution **739 (WRC-19)**.

In addition, CEPT is supporting the following proposal for a new WRC-27 agenda item:

- FSS (Earth-to-space) 51.4-52.4 GHz for gateway earth stations non-GSO;
- Space-to-space links in C-band (3700-4200 MHz and 5925-6425 MHz) in the FSS;
- Protection of RAS from aggregated interference from large non-GSO constellations.

In case WRC-23 does not approve new primary allocation of the frequency bands 4.2-4.4 GHz and 8.4-8.5 GHz to EESS (passive) for Sea Surface Temperature (SST) (as a consequence of WRC-23 agenda item 1.2), CEPT will propose during WRC-23 a new agenda item for WRC-27 related to new passive EESS allocation in these frequency bands.

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Finally, it should be noted that CEPT discussed the following proposals for possible new WRC-27 agenda items, which were not supported to be included in the European Common Proposal:

- Coexistence/sharing studies on possible IMT identifications of frequency bands in the range 7.125-24 GHz;
- Methodologies related to the computation of aggregate equivalent power flux density levels and compliance with the relevant limits given in Annex 1 to Resolution **76 (Rev. WRC-15)**;
- Review of regulatory provisions for the protection of GSO FSS and BSS networks from unacceptable interference from non-GSO FSS systems in the frequency bands below 30 GHz in which Article **22** epfd limits apply;
- Protection of space stations sharing frequency in some frequency bands above 24 GHz from terrestrial stations in the fixed service or the mobile service, including IMT stations, and that use an array of active elements, in follow-up on the Art **21.5** discussions.

## SHORT REPORT, INCLUDING STATUS FOR WEEK 1

All the input contributions have been introduced. The first drafting groups of Working Group 6B have been established. Drafting group 6B1 considers fixed-satellite and broadcasting-satellite service issues, preliminary agenda item 2.2 “Aeronautical and maritime ESIM GSO/NGSO in 39, 42, 47, 50 GHz (Resolution 176)” and new proposal on “Study on small antenna in 13.75-14 GHz”. The second drafting group 6B2 was established on Science Services to consider initially the proposals on Space Weather sensors. The work on the revision of Resolution **804** has been set on high priority in Working Group 6B and this work will continue during the weekend.

## NEXT STEPS

The interregional group will continue to provide guidance on the agenda items to be considered further in Working Group 6B. Additional drafting groups will be established in the beginning of the second week. CEPT priorities for the items in the European Common Proposals will need to be agreed as well as the view and priorities of the proposals from other regional organisations, multi-country proposals as well as from single-country proposals. The revision on Resolution 804 is expected to be finalised.