

STATUS OF CEPT PREPARATION FOR WRC-23 / RA-23

10 February 2023

Conference Preparatory Group (CPG)



- **A forum for CEPT Administrations (46) and ECC Observers**
- **European positions for ITU World Radiocommunication Conferences and Radiocommunication Assemblies**
- **Common positions in respect to ITU-R meetings**
- **Dialogue and cooperation with regional organisations outside CEPT**
- **Coordinated procedures for CEPT actions**

CPG Deliverables



European Common Proposals

- Multi-country proposals
- Guideline: **at least 10 CEPT members supporting and not more than 6 opposing the proposal**

CEPT Briefs on agenda items

- (Preliminary*) CEPT position agreed by consensus at each stage
- Background information and reasoning for CEPT position

* CPG project teams develop “Draft Preliminary CEPT positions” while CPG Plenary approves “(Preliminary) CEPT positions”

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PROJECT TEAM B

PROJECT TEAM C

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SCIENCE & GENERAL

SPACE

TRANSPORT

UHF BAND

IMT MATTERS

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Assignment of WRC-23 Agenda Items

CONFERENCE PREPARATORY GROUP

PROJECT TEAM A

SCIENCE & GENERAL

1.12 Radar sounders
1.13 SRS 15 GHz
1.14 EESS(passive) 250 GHz
9.1a Space weather sensors
9.1d EESS(passive) 37 GHz
9.1c FWA / FS bands
Res. 655 Time scale
 2 Recs incorporated by ref.
 4 Review of Res/Recs
 8 Review of footnotes
 10 Future agenda

PROJECT TEAM B

SPACE

1.15 GSO ESIM Ku-band
1.16 NGSO ESIM Ka-band
1.17 Inter-satellite links
1.18 MSS data collection
1.19 FSS 17 GHz
 7 Sat. procedures (Res. 86)
9.2 Inconsistencies in RR
9.3 Due diligence (Res. 80)
Art. 21 Updates to Table 21-2
CS Article 48

PROJECT TEAM C

TRANSPORT

1.1 Review of 5.441B
1.6 Sub-orbital vehicles
1.7 AMS(R)S 137 MHz
1.8 Resolution 155
1.9 Appendix 27
1.10 AMS non-safety
1.11 GMDSS
9.1b Protection of RNSS
Res. 427 Aero. provisions

PROJECT TEAM D

UHF BAND

1.5 UHF review

PROJECT TEAM ECC PT1

IMT MATTERS

1.2 IMT centimetre bands
1.3 MS 3.6-3.8 GHz
1.4 HIBS
Art. 21 Limit in No. 21.5 & verification of No. 21.5



In general, CEPT supports the ITU-R studies on all WRC-23 agenda items as outlined in relevant Resolutions of WRC-15 and WRC-19



WRC-23 Agenda item 1.1

*to consider, based on the results of the 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 pfd criteria in No. **5.441B** in accordance with Resolution **223 (Rev.WRC-19)***

Preliminary 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 recognized 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 recognized 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.

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WRC-23 Agenda item 1.2 (1/4)

*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)***

Preliminary 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.



WRC-23 Agenda item 1.2 (2/4)

*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)***

Preliminary CEPT position (cont.)

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)

To be developed



WRC-23 Agenda item 1.2 (3/4)

*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)***

Preliminary CEPT position (cont.)

6425-7025 MHz (Region 1) and 7025-7125 MHz (Globally)

- CEPT is considering different future wireless broadband usages in the frequency band 6425-7125 MHz i.e. IMT or WAS/RLAN or a shared framework between IMT and WAS/RLAN, while taking into account the coexistence with incumbent services.
- CEPT recognises that some countries and/or regions outside CEPT may propose an IMT identification in the band 6425-7125 MHz and whilst not advocating for it or proactively supporting it, CEPT is considering the conditions for potentially accepting an IMT identification in this band or parts thereof.
- CEPT is of the view that the protection of incumbent primary services and applications in the band 6425-7125 MHz should be ensured through relevant RR provisions if this band or parts thereof are identified for IMT. Due consideration should also be given to the continued operation of other services (i.e. RR Nos. **5.458** and **5.149**).
- CEPT emphasises that any potential IMT identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. Additional provisions should clearly outline opportunities for other broadband applications in the mobile services (i.e. WAS/RLAN).
- CEPT is discussing further conditions including in relation to potential candidate IMT bands for WRC-27.



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WRC-23 Agenda item 1.2 (4/4)

*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)***

Preliminary CEPT position (cont.)

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.



WRC-23 Agenda item 1.3

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

Preliminary 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 $-154.5 \text{ dBW/m}^2/4 \text{ kHz}$ 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 are required in ITU-R to ensure that the full objective of Resolution **246 (WRC-19)** is met.

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

WRC-23 Agenda item 1.4

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

Preliminary 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.

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.



WRC-23 Agenda item 1.5 (1/3)

*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)***

Preliminary CEPT position

- CEPT supports a complete and comprehensive overview of the existing usage and evaluation of spectrum needs of the existing services within the frequency band 470–960 MHz in Region 1 as a basis for further work on agenda item 1.5.
- CEPT is of the view that any consideration of possible regulatory action(s) in the band 470-694 MHz requires a full account of the results and impact of sharing studies including a thorough analysis.
- 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.



WRC-23 Agenda item 1.5 (2/3)

*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)***

Preliminary CEPT position (cont.)

- CEPT is of the view that this agenda item seeks the long-term balance between meeting various national requirements and 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.
- CEPT supports the continuation and development of the incumbent usage by PMSE (SAP/SAB) (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.

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WRC-23 Agenda item 1.5 (3/3)

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)

Preliminary CEPT position (cont.)

- Taking into account the above views, CEPT is currently investigating three options to respond to this AI:
 - No Change, with an agenda item at a later WRC to consider possible regulatory actions in the frequency band 470-694 MHz;
 - A primary allocation to the mobile service to be made at WRC-23, which would come into effect at a later date;
 - A secondary allocation to the mobile service to be made at WRC-23, with an item on the agenda of WRC-31 for consideration of a possible upgrade to a primary allocation.



WRC-23 Agenda item 1.6

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

Preliminary CEPT position

CEPT is of the view 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;
- decides which of the terrestrial stations and earth stations on board a sub-orbital vehicle are required to ensure the safe integration in aviation airspace under the following conditions:
 - that using only aviation systems standardised by ICAO;
 - that these stations on board sub-orbital vehicles shall not impose any additional constraint than aircraft on other services or applications operated in the same service, and in adjacent band;
 - that these stations on sub-orbital vehicles shall not impact the radiocommunications of satellite launchers which operate in the space operation service.

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WRC-23 Agenda item 1.7 (1/2)

*to consider a new aeronautical mobile-satellite (R) service (AMS(R)S) 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 AM(R)S, the ARNS, and in adjacent frequency bands*

Preliminary CEPT position

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

- limiting the use of the new AMS(R)S allocation to non-geostationary and internationally standardised aeronautical systems;
- mandating that the use of this new primary allocation to AMS(R)S be subject to appropriate Article **9** coordination provisions, for example No. **9.11A**;
- ensuring protection of services in adjacent bands and not constraining these services.

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**.



WRC-23 Agenda item 1.7 (2/2)

*to consider a new aeronautical mobile-satellite (R) service (AMS(R)S) 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 AM(R)S, the ARNS, and in adjacent frequency bands*

Preliminary CEPT position (cont.)

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 136-136.9375 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 the allocation to AMS(R)S should be protected as a safety service, recognizing that the required protection of AMS(R)S satellite receivers shall not adversely impact planned usage of MSS, SOS, SRS and MetSat systems above 137 MHz.



WRC-23 Agenda item 1.8 (1/3)

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 (FSS) networks by control and non-payload communications of unmanned aircraft systems

Preliminary CEPT position

CEPT acknowledges the opportunities of the use of networks of the FSS for UAS CNPC links and CEPT is of the view that UAS CNPC links using FSS in non-segregated airspace shall operate:

- in accordance with ICAO SARPs;
- under successfully coordinated assignments for FSS applications notified with class of earth station “UG”.

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 RR;
- all cases which fall under RR **11.41**.



WRC-23 Agenda item 1.8 (2/3)

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 (FSS) networks by control and non-payload communications of unmanned aircraft systems

Preliminary CEPT position (cont.)

CEPT is of the view that in order to ensure safety-of-flight operation of UAS, the administrations responsible for the operation of UAS CNPC links under the ICAO SARPs shall:

- take the required measures to ensure freedom from harmful interference to earth stations on board UA;
- act immediately when their attention is drawn to any such harmful interference; thus, the cases where harmful interferences could not be mitigated by the administration responsible for operating UAS CNPC links and which lead to a loss of the UAS CNPC links would need to be addressed by airworthiness and flight operational procedures defined within ICAO.

CEPT is of the view that the pfd mask labelled as example b in Annex 2 of Resolution 155 (Rev. WRC-19) is appropriate to protect the terrestrial services.

CEPT is of the view that the RR No. 5.149 for the protection of Radioastronomy from harmful interference in the frequency band 14.47-14.5 GHz has to be taken into account.



WRC-23 Agenda item 1.8 (3/3)

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 (FSS) networks by control and non-payload communications of unmanned aircraft systems

Preliminary CEPT position (cont.)

CEPT recognises that ICAO is responsible for the safe operation of aircraft including UAS and is developing appropriate SARPs covering all aspects of safe operation of UAS including the required communication systems

CEPT recognizes that RR 4.10 does not apply to the use of networks of the FSS for the UAS CNPC links between Earth station on board the UA and the satellites. This implies that any administration notifying FSS network as well as any administration authorising the operation of stations of the terrestrial services in accordance with the RR in the frequency bands identified in *resolves* 1 of Resolution 155 (Rev.WRC-19) have not responsibility for the safety of life for these.

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.



WRC-23 Agenda item 1.9

to review Appendix 27 of the Radio Regulations and consider appropriate regulatory actions and updates based on ITU-R studies, in order to accommodate digital technologies for commercial aviation safety-of-life applications in existing HF bands allocated to the aeronautical mobile (route) service and ensure coexistence of current HF systems alongside modernized HF systems, in accordance with Resolution 429 (WRC-19)

Preliminary 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 is of the view that relevant parts of the current text of the Rules of Procedures need to be introduced in RR Appendix 27 and make adjustments to make explicit the use of wideband emissions by aggregation of multiple individual channels each of which complies with the provisions of the RR Appendix 27.



WRC-23 Agenda item 1.10

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 (WRC-19)

Preliminary CEPT position

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

- ensuring protection of the EESS/SRS (passive), and the RAS from unwanted emissions of the AMS;
- ensuring protection of the primary allocations to radiolocation, aeronautical radionavigation and fixed-satellite (Earth-to-space) services in the relevant parts of the frequency band 15.4-15.7 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.



WRC-23 Agenda item 1.11 (1/2)

*to consider possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System and the implementation of e-navigation, in accordance with Resolution **361 (Rev.WRC-19)***

Preliminary 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;
- 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.



WRC-23 Agenda item 1.11 (2/2)

*to consider possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System and the implementation of e-navigation, in accordance with Resolution **361 (Rev.WRC-19)***

Preliminary CEPT position (cont.)

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 actions due to the introduction of additional satellite systems into the GMDSS by IMO

CEPT does not support at this stage the introduction of the satellite system BEIDOU in the Radio Regulations in order to be part of the GMDSS, even if the IMO were to recognize BEIDOU 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.



WRC-23 Agenda item 1.12

to conduct, and complete in time for WRC-23, studies for a possible new secondary allocation to the Earth exploration-satellite (active) service 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)

Preliminary 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.



WRC-23 Agenda item 1.13

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)

Preliminary CEPT position

CEPT is supporting upgrade of 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 2×10^6 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) in the frequency band 14.8-15.35 GHz. Additionally, an upgrading of the SRS should not place constraints on the FS and MS and CEPT will consider whether further regulatory measures are needed.



WRC-23 Agenda item 1.14

to review and consider possible adjustments of the existing or possible new primary frequency allocations to EESS (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)

Preliminary 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.



WRC-23 Agenda item 1.15 (1/2)

*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)***

Preliminary 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.



WRC-23 Agenda item 1.15 (2/2)

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)

Preliminary CEPT position (cont.)

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 / authorization 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 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.



WRC-23 Agenda item 1.16 (1/4)

*to study and develop technical, operational and regulatory measures, as appropriate, to facilitate the use of the frequency bands 17.7-18.6 GHz and 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-GSO FSS earth stations in motion, while ensuring due protection of existing services in those frequency bands, in accordance with Resolution **173 (WRC-19)***

Preliminary 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.



WRC-23 Agenda item 1.16 (2/4)

*to study and develop technical, operational and regulatory measures, as appropriate, to facilitate the use of the frequency bands 17.7-18.6 GHz and 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-GSO FSS earth stations in motion, while ensuring due protection of existing services in those frequency bands, in accordance with Resolution **173 (WRC-19)***

Preliminary CEPT position (cont.)

- 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;



WRC-23 Agenda item 1.16 (3/4)

*to study and develop technical, operational and regulatory measures, as appropriate, to facilitate the use of the frequency bands 17.7-18.6 GHz and 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-GSO FSS earth stations in motion, while ensuring due protection of existing services in those frequency bands, in accordance with Resolution **173 (WRC-19)***

Preliminary CEPT position (cont.)

- 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**.



WRC-23 Agenda item 1.16 (4/4)

*to study and develop technical, operational and regulatory measures, as appropriate, to facilitate the use of the frequency bands 17.7-18.6 GHz and 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-GSO FSS earth stations in motion, while ensuring due protection of existing services in those frequency bands, in accordance with Resolution **173 (WRC-19)***

Preliminary CEPT position (cont.)

- 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 / authorization 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, and compatibility studies with related non-GSO systems to define necessary protection measures. In particular, CEPT is of the view that enabling the operations of non-GSO ESIM should not result in an increase of the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz band. Any measure on non-GSO space stations communicating with aeronautical ESIM and maritime ESIM that may be needed to limit the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz band shall be applicable only to those non-GSO systems notified/brought into use after the last day of WRC-23.

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.



WRC-23 Agenda item 1.17 (1/4)

to determine and carry out, on the basis of the 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

Preliminary CEPT position

CEPT supports the development of a regulatory framework to enable the operation of satellite-to-satellite links in the 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz bands while ensuring 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 oppose the deletion of the 11.7-12.7 GHz frequency bands from the consideration under this agenda item.



WRC-23 Agenda item 1.17 (2/4)

to determine and carry out, on the basis of the 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

Preliminary CEPT position (cont.)

CEPT is considering whether to address this agenda item through either an FSS (space-to-space) or 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 the completion of the studies in order to be able to address the operations under the “expanded cone” concept of operations.

CEPT supports the development of an envelope provisions where no additional coordination would be required for the user and service provider space stations if sat-to-sat emissions fall within in the envelope of the operational characteristics of the service provider. Additional coordination or measures may be required for the user space stations outside the cone of coverage for the protection of GSO.

For the protection of GSO systems in the bands where efd limits are in place, the CEPT is considering alternative provisions depending on whether the transmission is from non-GSO to non-GSO or from non-GSO to GSO.

For the protection of non-GSO systems, the CEPT is considering the development of hard limits.



WRC-23 Agenda item 1.17 (3/4)

to determine and carry out, on the basis of the 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

Preliminary CEPT position (cont.)

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

- 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);
- Non-GSO user space stations will operate in a manner that should resemble typical Earth stations of the FSS service provider system;
- The equivalent power flux-density, epfd_{\uparrow} , produced at any point in the geostationary-satellite orbit by emissions from all combined operations of space-to-space and typical Earth station transmissions shall not exceed the limits given in Table 22-2;
- The equivalent power flux-density, 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.



WRC-23 Agenda item 1.17 (4/4)

to determine and carry out, on the basis of the 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

Preliminary CEPT position (cont.)

- 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;
- Enabling the operation of satellite-to-satellite links should not result in an increase of the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz band. CEPT supports the development of measures to ensure EESS (passive) protection in the 18.6-18.8 GHz frequency band. Any provision on non-GSO service provider space stations providing satellite-to-satellite links that may be needed to limit the interference to EESS (passive) sensors operating in the 18.6-18.8 GHz shall be applicable only to those non-GSO service provider systems notified/brought into use after the last day of WRC-23.



WRC-23 Agenda item 1.18

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)

Preliminary 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.



WRC-23 Agenda item 1.19

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)

Preliminary 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.



WRC-23 Agenda item 2

*to examine the revised ITU-R 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*

Preliminary 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 ITU-R M.585-9
- TBD

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.



WRC-23 Agenda item 4

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

Preliminary 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)**, to be developed;
- CEPT proposes to modify Resolutions: RES **76 (WRC-15)**, RES **99 (WRC-19)**, RES **655 (WRC-15)**, RES **731 (Rev.WRC-19)**, RES **804 (Rev.WRC-19)**, to be developed;
- CEPT proposes to suppress Recommendations: to be developed;
- CEPT proposes to modify Recommendations: REC **34 (Rev. WRC-12)**, to be developed.



WRC-23 Agenda item 4 - Resolution 655 (WRC-15)

Resolution 655 (WRC-15) - Definition of time scale and dissemination of time signals via radiocommunication systems

Preliminary 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; and
- 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)**.



WRC-23 Agenda item 7

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

Preliminary 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.



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WRC-23 Agenda item 7, Topic A

Tolerances for non-GSO orbital characteristics

Preliminary CEPT position

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

CEPT does not support the development of tolerances under this Topic for the orbital characteristics of non-GSO space stations whose frequency assignments belong to services other than the FSS, BSS and MSS.

CEPT supports the development of these tolerances of all FSS, BSS and MSS systems 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.

To avoid collision with another non-GSO space station or to permit reorganization of satellites in an orbit-plane after a launch of new non-GSO space stations, CEPT supports, under No. **11.51**, specific regulatory measures to temporarily exceed the defined tolerances.

CEPT supports the development of 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.



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WRC-23 Agenda item 7, Topic B

Non-GSO BIU post-milestone procedure

Preliminary CEPT position

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 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.
- 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. (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.

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

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WRC-23 Agenda item 7, Topic C

Protection of GSO MSS from non-GSO emissions in 7/8 and 20/30 GHz

Preliminary CEPT position

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 information is received by the Bureau after the last date of WRC-23 or the entry into force of final acts of WRC-23.
- 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.



WRC-23 Agenda item 7, Topic D1

Modifications to Appendix 1 to Annex 4 of AP 30B

Preliminary CEPT position

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.



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WRC-23 Agenda item 7, Topic D2

New Appendix 4 parameters for Recommendation ITU-R S.1503 updates

Preliminary CEPT position

CEPT supports making modifications to Appendix 4 in consequence to the update to Recommendation ITU-R S.1503. CEPT acknowledges the existence of other methods that could allow administrations to provide the additional parameters required by updates to Recommendation ITU-R S.1503, e.g. by defining new fields in the.xml file that describes a non-GSO system operating parameters.



WRC-23 Agenda item 7, Topic D3

BR reminders for BIU and BBIU

Preliminary CEPT position

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**.



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WRC-23 Agenda item 7, Topic E

Improved procedures under AP 30B for new ITU member States

Preliminary CEPT position

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 Member State of the Union, already contained in Article 7 of Appendix **30B** of the RR.

CEPT supports that a comprehensive understanding of the interference scenarios for new ITU Member States can be achieved through additional technical analysis.

CEPT encourages new ITU Member States and the resulting affected administrations to actively undertake and cooperate in coordination discussions to resolve any interference cases in addition to consider RR changes.



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WRC-23 Agenda item 7, Topic F

Excluding uplink service area in Appendix 30A for Regions 1 & 3 and in Appendix 30B

Preliminary CEPT position

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.

As alternative solution, CEPT supports developing specific measures to avoid creating obstacles to establish satellite networks by other countries over their territories considering implementable regulatory and technical solutions that will not unduly restrict operations of other satellite networks, in particular satellite networks already in operation.

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

CEPT supports developing specific measures fully protecting current and future operations, taking into account the required roll-off of the space station receive beam to address such operations.

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.



WRC-23 Agenda item 7, Topic G

Resolution 770 (WRC-19) GSO protection from single entry non-GSO in Q/V bands

Preliminary CEPT position

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



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WRC-23 Agenda item 7, Topic H

*Enhanced protection of Appendices **30** and **30A** in Region 1 and 3 and Appendix **30B***

Preliminary CEPT position

CEPT notes that there are several Planned bands initiatives to be discussed at WRC-23.

CEPT 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.



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WRC-23 Agenda item 7, Topic I

Special agreements under AP 30B

Preliminary CEPT position

CEPT supports the development of 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.



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WRC-23 Agenda item 7, Topic J (1/3)

Modifications to Resolution 76 (Rev. WRC-15)

Preliminary CEPT position

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

CEPT supports that only those non-GSO systems for which appropriate Notification information under No. **11.2** of the Radio Regulations and for which submission of the information referred to in *resolves 2, 3, 7* and/or 8, as applicable, of Resolution **35** (WRC-19) have been submitted should be considered to evaluate the aggregate epfd levels;

CEPT supports that only those GSO networks for which appropriate Notification information under No. **11.2** of the Radio Regulations and for which submission of the information referred to in No. **11.44B** of the Radio Regulations has been submitted should be considered in the evaluation of the aggregate epfd levels;

CEPT supports that administrations notifying NGSO systems that meet the applicable criteria indicated above can participate in the consultation meetings;

CEPT also supports non-GSO systems for which appropriate notification information under No. **11.2** of the Radio Regulations has been submitted may participate in the consultation meetings;



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WRC-23 Agenda item 7, Topic J (2/3)

Modifications to Resolution 76 (Rev. WRC-15)

Preliminary CEPT position (cont.)

CEPT supports that administrations notifying GSO networks that meet the applicable criteria indicated above can participate in the consultation meetings and make comments with respect to the results of the computations;

CEPT supports that a mechanism should be established to ensure that all administrations are given full visibility of the process;

CEPT supports that the ITU-R should develop Terms of Reference to regulate the first consultation meeting;

CEPT supports that the technical work, such as the methodology to be used to evaluate aggregate efpd 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 efpd levels, should be developed by the ITU Radiocommunication Sector 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;



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WRC-23 Agenda item 7, Topic J (3/3)

Modifications to Resolution 76 (Rev. WRC-15)

Preliminary CEPT position (cont.)

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;

CEPT supports that those administrations participating in the consultation meetings should designate one administration that should communicate to the Bureau the results of any technical or operational amendment to the relevant non-GSO FSS systems following the application of the amended Resolution **76 (Rev.WRC-15)**;

CEPT does not support instructing the BR to develop aggregate efd calculation tools.



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WRC-23 Agenda item 7, Topic K

Modifications to Resolution 553 (Rev. WRC-15)

Preliminary CEPT position

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.



WRC-23 Agenda item 8 (1/2)

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)

Preliminary 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.



WRC-23 Agenda item 8 (2/2)

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)

Preliminary CEPT position (cont.)

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 Co-coordinators:
Bharat DUDHIA (G)
Katharina ANDERSEN (D)

WRC-23 Agenda item 9.1, topic a

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

Preliminary 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 space weather in the priority frequency bands which will be defined for this purpose.

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



CEPT Co-coordinators:
Hans BLONDEEL TIMMERMAN (HOL)
Jean CHENEBAULT (F)

WRC-23 Agenda item 9.1, topic b

Review of 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 (space-to-Earth) service operating in the same band in accordance with Resolution 774 (WRC-19)

Preliminary 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.



WRC-23 Agenda item 9.1, topic c

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

Preliminary 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 draft new or revised Resolution on this topic, aligned with Alternative 2 of the draft CPM text.

CEPT is 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 aligned with Approach 2 of the draft CPM text;
- 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.



WRC-23 Agenda item 9.1, topic d

Protection of EESS (passive) in the frequency band 36-37 GHz from non-GSO FSS space stations

Preliminary 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 support the inclusion of that unwanted emission power limit in a new footnote of Article 5 of the Radio Regulation during WRC-23.



Resolution 427 (WRC-19)

Resolution 427 (WRC-19) - Updating provisions related to aeronautical services in the Radio Regulations

Preliminary CEPT position

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



Interim CEPT Co-coordinator (PT1):
Steve GREEN (G)



CEPT Co-coordinator (PTB):
Florence MAGNIER (F)

Article 21 (1/3)

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, with a view to recommend ways for its possible replacement or revision for such stations, as well as any necessary updates to Table 21-2 related to terrestrial and space services sharing frequency bands

Preliminary CEPT position

Interim solution: proposed approach for notification and verification of stations in the mobile service, including IMT stations, and the fixed service that use an array of active elements 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 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 notification field 8AA ("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).



Interim CEPT Co-coordinator (PT1):
Steve GREEN (G)



CEPT Co-coordinator (PTB):
Florence MAGNIER (F)

Article 21 (2/3)

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, with a view to recommend ways for its possible replacement or revision for such stations, as well as any necessary updates to Table 21-2 related to terrestrial and space services sharing frequency bands

Preliminary CEPT position (cont.)

For this interim solution, 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)

A remark could be added in the assignment record to indicate the need to review the finding with the WRC-23 decision.

CEPT is of the view that no change to RR No. 21.5 is needed in order to implement the above interim solution; instead, a rule of procedure should be developed.



Interim CEPT Co-coordinator (PT1):
Steve GREEN (G)



CEPT Co-coordinator (PTB):
Florence MAGNIER (F)

Article 21 (3/3)

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, with a view to recommend ways for its possible replacement or revision for such stations, as well as any necessary updates to Table 21-2 related to terrestrial and space services sharing frequency bands

Preliminary CEPT position

Review of RR No. 21.5 and possible actions by a WRC

CEPT is considering whether the same approach as for the interim solution could be applied in frequency bands used for reception by space stations, though not excluding alternative solutions. Any solution should ensure that it does not impact the protection of satellite reception.

Issue C

CEPT considers to develop the updates of Table 21-2 of RR Article 21 to include the following frequency bands, where reception by space stations is to be protected when these bands are shared with equal rights with the fixed and mobile services:

- 24.45-27.5 GHz, 40-40.5 GHz, 42.5-43.5 GHz, 45.5-47 GHz, 47.2-48.2 GHz, 66-71 GHz, which are identified for IMT and might be used by stations with AAS, and
- 43.5-45.5, 48.2-50.2, 50.4-51.4 GHz

CEPT will assess whether the limit in No. 21.5 has to be adapted for the frequency bands above 29.5 GHz (see above).⁶⁹



CEPT Coordinator:
Mario NERI (F)

WRC-23 Agenda item 9.2

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

Preliminary CEPT position

To be developed



WRC-23 Agenda item 9.3

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

Preliminary CEPT position

To be developed



CEPT Coordinator:
Pasi TOIVONEN (FIN)



Coordination team:
Karsten BUCKWITZ (D)
Emmanuel FAUSSURIER (F)

WRC-23 Agenda item 10 (1/2)

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

Preliminary CEPT position

CEPT is developing position on preliminary agenda items as included in Resolution **812 (WRC-19)** as well as considering new agenda items.

CEPT is currently supporting the following preliminary Agenda items :

- 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 EIRP 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)**.
- 2.11 - 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.



CEPT Coordinator:
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WRC-23 Agenda item 10 (2/2)

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

Preliminary CEPT position (cont.)

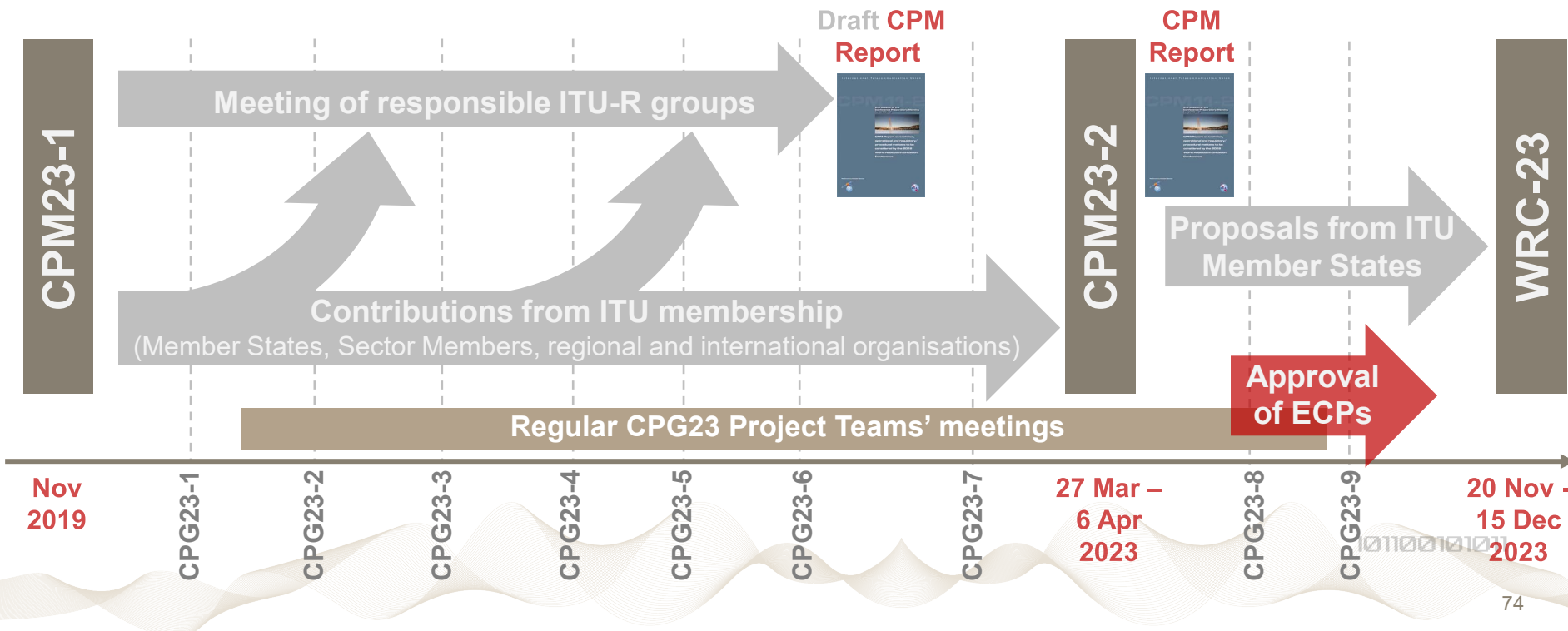
In replacement of preliminary agenda item 2.5, CEPT is supporting the following proposals for new agenda items:

- 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

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

- FSS (Earth-to-space) 51.4 -52.4 GHz for gateway earth stations NGSO.

CPG23 Timeline



Nov 2019

CPG23-1

CPG23-2

CPG23-3

CPG23-4

CPG23-5

CPG23-6

CPG23-7

27 Mar – 6 Apr 2023

CPG23-8

CPG23-9

20 Nov - 15 Dec 2023

Upcoming Meetings

CPG Plenary

- 22-26 May 2023,
Thessaloniki (Greece)
- 18-22 September 2023
Dublin (Ireland)

CPG Project Teams

- PTB-7, 17-21 April 2023, ECO Copenhagen
- PTC-8, 24-28 April 2023, Cluj-Napoca (Romania),
- ECC PT1, 24-28 April 2023, Norway
- PTA-8, 2-5 May 2023, Brussels (Belgium)
- PTD-9, 8-12 May 2023, TBD



CEPT welcomes the representatives from other regional organisations to the meetings of CPG and its Project Teams



Further information

General information on CEPT: <https://www.cept.org/ecc>

CPG23 page: <https://www.cept.org/ecc/groups/ecc/cpg>

CEPT coordinators:

<https://www.cept.org/ecc/groups/ecc/cpg/page/list-of-cept-coordinators-wrc-23>

CEPT Briefs / European Common Proposal to WRC-23:

<https://www.cept.org/ecc/groups/ecc/cpg/page/cept-briefs-and-ecps-for-wrc-23>

CPG23 Meeting Schedule:

<https://cept.org/ecc/groups/ecc/cpg/client/meeting-documents/file-history/?fid=75555>

CEPT Network of Women for WRC-23 (NOW4WRC23) page:

<https://cept.org/ecc/groups/ecc/cpg/now4wrc23/client/introduction/>