



Structure of CPG-15

- The Conference Preparatory Group (CPG-15) of CEPT/ECC is responsible for developing the ECPs and Briefs for WRC-15 and RA-15
- The CPG management team is:

Chairman: Stephen Bond, UK

Vice-Chairmen: Alexander Kühn, Germany

Gerlof Osinga, the Netherlands

Secretary: Wesley Milton, UK



CPG-15 Project Teams

- PTA (chairman Alexander Kühn, Germany):
 Al 1.3; 1.11; 1.12; 1.13; 1.14; 2; 4; 8; 9.1.4; 9.1.6; 9.1.7;
 9.1.8; 10; RA15/RAG related matters
- PTB (co-chairmen Alexandre Vallet, France), Victor Glusko, Russian Fed.:
 Al 1.6; 1.7; 1.8; 1.9; 1.10; 7; 9.1.1; 9.1.2; 9.1.3; 9.1.5; 9.3
- PTC (chairman Gerlof Osinga, Netherlands):
 Al 1.4; 1.5; 1.15; 1.16; 1.17; 1.18
- PTD (chairman Didier Chauveau, France):
 Al 1.1; 1.2



CPG-15 Deliverables

For both WRC and the RA:

- European Common Proposals (ECPs)
 - At least 10 administrations in support
 - No more than 6 opposing as a general guideline

CEPT Briefs

- Describe each agenda item
- Contains the CEPT view agreed by consensus at each stage
- CEPT co-ordination in ITU-R meetings
 - Agreed contributions (also for non-WRC issues)
 - Co-ordination on lines to take



Agenda Item 1.1 (drafted by CPG PTD-2)

Preliminary CEPT position:

- Spectrum estimates should be based ITU-R studies
- Additional frequency bands for IMT should be identified on global basis
- Existing sharing studies for the candidate bands should be taken into account, as appropriate

Background:

CEPT is developing positions on:

- spectrum estimates,
- suitable frequency ranges/candidate bands and
- sharing issues.



Agenda Item 1.2 (drafted by CPG PTD-2)

Preliminary CEPT position:

CEPT will support studies according to Resolution 232

Background:

CEPT will study positions on key issues:

- options for refinement of the lower edge of the mobile allocation;
- channelling arrangements for the mobile service;
- spectrum requirements in the 700 MHz band for broadcasting and mobile; and
- applications ancillary to broadcasting



Agenda Item 1.3 (drafted by CPG-15 PTA-2)

Preliminary CEPT position:

CEPT supports studies on the revision of Res. 646 in accordance with Res. 648. Regarding the question of frequency ranges to be identified in Region 1, specific account should be given to the requirements of broadband PPDR. These bands can then be compared within the ITU process to facilitate regional or worldwide interoperability and to maximise economies of scale and the consequential effect on any revisions needed in Res. 646. [...]

Background:

CEPT initiated regional studies on key issues:

- Requirements for Broadband PPDR;
- Flexible regulatory options to satisfy those requirements

CEPT Coordinator: Peter Buttenschön (Germany)



Agenda Item 1.4 (approved by CPG-15-2)

Issue:

to consider possible new allocation to the amateur service on a secondary basis within the band 5 250-5 450 kHz in accordance with Resolution 649 (WRC-12)

Preliminary CEPT position:

TBD



Agenda Item 1.5 (approved by CPG-15-2)

Issue:

to consider the use of frequency bands allocated to the fixed-satellite service not subject to Appendices 30, 30A and 30B for the control and non-payload communications of unmanned aircraft systems (UAS) in non-segregated airspaces, in accordance with Resolution 153 (WRC-12);

Preliminary CEPT position:

CEPT supports conducting, the necessary studies leading to technical, regulatory and operational recommendations to the WRC-15, enabling that Conference to decide on the usage of FSS for the CNPC links for the safe operation of UAS in non-segregated airspace

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Agenda Item 1.6 (drafted by CPG PTB-2)

Preliminary CEPT position:

CEPT supports the need additional primary allocations of 250 MHz (Earth-to-space and space-to-Earth) to the GEO-FSS in frequency bands between 10 and 17 GHz in Region 1. An allocation can be made only if studies demonstrate the compatibility with the existing services in these frequency bands.

At this stage, based on studies provided, CEPT does not support FSS (E-s) allocation in the 13.25-13.75 GHz band.

Background:

According to Resolution 151 (WRC-12) and Resolution 152 (WRC-12), studies of possible bands should be conducted for the purpose of identifying additional spectrum of 250 MHz to the FSS (E-s and s-E) in frequency bands between 10 and 17 GHz in Region 1 and of 250 MHz to the FSS (E-s) in Region 2 and of 300 MHz in Region 3 within the range 13-17 GHz.

The PTB-2 agreed to conduct following studies:

- To provide studies on possible additional primary allocation to FSS of 250 MHz with particular attention to the band 14.5-15.35 GHz. These studies for paired frequency band of 250 MHz should take into account compatibility between uplink and downlink
- To study compatibility FSS (space-to-Earth) and EESS(active) at the band 13.25-13.75 GHz.



Agenda Item 1.7 (drafted by CPG PTB-2)

Issue:

to review the use of the bans 5 091-5 150 MHz by the FSS (E-s) (limited to feeder links of NGSO MSS systems) in accordance with Resolution 114 (Rev. WRC-12)

Preliminary CEPT position:

CEPT supports studies for refinement of operation conditions of the frequency band 5091-5150 MHz by FSS systems in accordance with Resolution 114 (Rev. WRC-12).

CEPT considers that aeronautical services should not be constrained by agreeing that FSS is retained in this band.

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CEPT Coordinator: TBD



Agenda Item 1.8 (drafted by CPG PTB-2)

Issue:

to review the provisions relating to earth stations located on board vessels (ESVs), based on studies conducted in accordance with Resolution **909** (WRC-12)

Preliminary CEPT position:

CEPT considers that possible modifications to Resolution **902 (WRC-03)** with the purpose to reflect current ESV technologies and technical characteristics of the earth stations on board vessels (ESVs), should be made only at protecting the other services and also should not limit their further development.

CEPT considers that there is a value in keeping the existing methodology of protective distances with the purpose of sharing regulation ESV and other services in the frequency bands specified in Resolution **902** (WRC-03) and does not object to reduce protective distances taking into account new technologies of ESV, while protecting the other services having allocations in the frequency bands 5 925-6 425 MHz and 14.0-14.5 GHz. Exact values of protective distances from a vessel up to a coast line should be defined at the further studies.

Alternative protection means (for example, pfd limits) of terrestrial services should also be studied.

CEPT Coordinator: TBD



Agenda Item 1.9.1 (drafted by CPG PTB-2)

Preliminary CEPT position:

CEPT supports the on-going ITU-R studies with a view of making a new allocation to the FSS in the bands 7 150-7 250 MHz (space-to-Earth) and 8 400-8 500 MHz (Earth-to-space), condition to the fact that not putting undue constraints to and to ensure protection of the services already allocated in these frequency bands.

Background:

The frequency bands 7 250-7 750 MHz (s-E) and 7 900-8 400 MHz (E-s) are currently allocated worldwide to the FSS.

Regarding the FSS, some administrations have reported a shortfall of spectrum available for their current and future applications in these bands. FSS additional bandwidth requirements for data transmission on the next-generation satellites are estimated to be around a maximum of 100 MHz.



Agenda Item 1.9.2 (approved by CPG PTB-2)

Preliminary CEPT position:

CEPT supports the on-going ITU-R studies with a view of making a new allocation to the MMSS in the bands 7 375-7 750 MHz (space-to-Earth) and 8 025-8 400 MHz (Earth-to-space), condition to the fact that not putting undue constraints to and to ensure protection of the services already allocated in these frequency bands.

To this respect, CEPT does not support the usage of these bands for applications that could imply a deployment of a large number of Earth stations in the MMSS. In particular, CEPT does not support the usage of the bands 7 375-7 750 MHz (space-to-Earth) and 8 025-8 400 MHz (Earth-to-space) for e-navigation or GMDSS.

It is to be noted that the current preliminary studies show no compatibility between EESS (space-to-Earth) and MMSS in the band 8025-8400 MHz without operational constraints on MMSS earth stations.

Background:

The frequency bands 7 250-7 375 MHz (s-E) and 7 900-8 025 MHz (E-s) are also allocated to the MSS on a primary basis, subject to agreement obtained under No 9.21 (see No. 5.461).

Regarding the MMSS, some administrations have reported a shortfall of spectrum available for their current and future applications in these bands.



Agenda Item 1.10 (approved by CPG-15-2)

Preliminary CEPT position:

CEPT sees some difficulties for allocations within these bands and is unlikely to support additional allocations. At present CEPT does not see a need for additional spectrum requirements and therefore CEPT sees a need for justification for possible spectrum allocations for the MSS in the band 22-26 GHz.

Background:

The frequency range 22-26 GHz is allocated to a large number of radiocommunication services. Some of them are of considerable importance to European Administrations, i. e. the FS, EESS, RAS and SRS. Within 22-26 GHz, no areas could be identified where MSS services may operate, without causing interference to current services or constraining their development.



Agenda Item 1.11 (drafted by CPG PTA-2)

Preliminary CEPT position:

The provision of a worldwide primary allocation to EESS (E-s) in the 7-8 GHz range, with priority to the band 7 145 – 7 235 MHz, is supported by CEPT provided that compatibility studies show an adequate protection of other space and terrestrial services in the 7-8 GHz band. Other frequencies in the range 7-8 GHz should be considered if sharing with SRS is not found to be feasible.

Background:

- The analysis of EESS spectrum requirements is provided as PDN Report ITU-R SA.[SPECTRUM REQUIREMENTS];
- Sharing analysis between EESS (E-s) and SRS (E-s) systems are summarised in a working document towards a PDN Report ITU-R SA.[EESS 7-8 GHz_SHARING-SPACE]. Studies have shown that the band 7145-7190 MHZ (SRS E-s Deep Space) has to be excluded from consideration;
- Sharing analysis between EESS (E-s) and FS systems are summarised in a working document towards a PDN Report ITU-R SA.[EESS-FS-7GHz];
- Sharing analysis between EESS (E-s) and FSS (s-E) in the band 7150-7250 MHz are on- going keeping in mind Al 1.9.1, which also aims to new allocations to FSS(s-E) in that band.



Agenda Item 1.12 (drafted by CPG PTA-2)

Preliminary CEPT position:

The addition of 600 MHz to the existing allocation is supported provided that

- studies show compatibility with existing radio services
- RAS, the SRS (active and passive), and the EESS (passive) in nearby allocations are adequately protected from unwanted emissions

Background:

- The characteristics of the intended new wideband 9 GHz EESS SAR are provided as PDN Rec. ITU-R RS.[EESS-9GHz-CHAR] submitted to WP7C (Apr13)
- EESS sharing studies with SRS (near Earth) and EESS(p) show compatibility submitted to WP7C
- Updated studies for SRS (deep space) submitted to WP7C
- EESS sharing studies with FS and MS show compatibility submitted to WP7C, for AS yet on-going
- EESS sharing studies with RDS (radars in RLS/RNS) submitted to WP7C



Agenda Item 1.13 (approved by CPG-15-2)

Preliminary CEPT position:

CEPT support studies on the issue.

CEPT is of the view that a removal or relaxation of the distance limitation within RR No. 5.268 could be beneficial for SRS space-to-space applications.

Background:

Resolution 652 (WRC-12) invites ITU-R to conduct sharing studies between SRS (space-to-space) systems communicating in the proximity of orbiting manned space vehicles and systems operating in the fixed and mobile (except aeronautical mobile) services in the band 410-420 MHz.

It also stated clearly in the *resolves to invite WRC-15* that a possible removal or relaxation of the 5 km distance limitation has to be made without modifying the current pfd limits.

Furthermore WRC-15 has to decide to allow a more general use of the 410-420 MHz band for SRS (space-to-space) systems beyond extra-vehicular activities.

CEPT Coordinator: Thibaut Caillet (France)



Agenda Item 1.14 (drafted by CPG PTA-2)

Preliminary CEPT position:

- CEPT supports the necessary studies on the feasibility of achieving a continuous reference time-scale, by modification of UTC or by other method, for dissemination by radiocommunication systems.
- CEPT also supports study on issues related to the possible implementation of a continuous reference time-scale (including technical and operational factors)

Background:

- This agenda item will consider the feasibility of achieving a continuous reference time-scale, whether by the modification of coordinated universal time (UTC) or some other method, and take appropriate action, in accordance with Resolution 653 (WRC 12).
- Apart from supporting studies to achieve continues time scale, CEPT is also
 planning to study the possibility of dissemination the continuous time-scale based
 on TAI together with UTC and in case of positive results to prepare appropriate
 proposals for modification of Recommendation ITU-R TF. 460-6.

CEPT Coordinator: Bharat Dudhia (UK)



Agenda Item 1.15 (approved by CPG-15-2)

Issue:

to consider spectrum demands for on-board communication stations in the maritime mobile service in accordance with Resolution **358** (WRC-12)

Preliminary CEPT position:

TBD



Agenda Item 1.16 (approved by CPG-15-2)

Issue:

to consider regulatory provisions and spectrum allocations to enable possible new Automatic Identification System (AIS) technology applications and possible new applications to improve maritime radiocommunication in accordance with Resolution 360 (WRC 12)

Preliminary CEPT position:

- CEPT is of the view that the implementation of new digital communication such as AIS type technology, VHF data exchange (VDE) and certain satellite communication components would enhance the maritime radio communications for maritime safety.
- CEPT is of the view that no modifications should be required to existing AIS equipment on board existing vessels and that the integrity of the original operational purpose of AIS as the primary function on the existing AIS frequencies should be protected



Agenda Item 1.17 (approved by CPG-15-2)

Issue:

to consider possible spectrum requirements and regulatory actions, including appropriate aeronautical allocations, to support wireless avionics intra-communications (WAIC), in accordance with Resolution 423 (WRC-12)

Preliminary CEPT position:

- WAIC communication is considered to be an application of a safety service as defined in RR 1.59. Consequently WAIC is an application of the Aeronautical Mobile (Route) Service (AM(R)S).
- CEPT supports the spectrum requirement of [239] MHz for WAIC as determined in the PDNR ITU-R M. [WAIC_CHAR_SPEC].
- CEPT supports the identification of [239] MHz of frequency spectrum under the AM(R)S, for the harmonized usage of WAIC.



Agenda Item 1.18 (approved by CPG-15-2)

Issue:

to consider a primary allocation to the radiolocation service for automotive applications in the 77.5 – 78.0 GHz frequency band in accordance with Resolution **654** (WRC12)

Preliminary CEPT position:

 CEPT supports a primary allocation to the radiolocation service in the frequency band 77.5 to 78.0 GHz to enable automotive short-range high-resolution radar operations



Agenda Item 2 (drafted by CPG PTA-2)

Issue

to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution 28 (Rev.WRC-03), and to decide whether or not to update the corresponding references in the Radio Regulations; in accordance with principles contained in Annex 1 to Resolution 27 (Rev.WRC-12);

Preliminary CEPT position:

- CEPT supports ITU-R studies on the revision of ITU-R Recommendations incorporated by reference
- CEPT resumes examining the compliance with the principles of Annex 1 to Resolution 27 (Rev.WRC-12) of the references to ITU-R Recommendations in the Radio Regulations.
- CEPT supports update of the RR Volume 4 cross references list taking into account its possible role in new arrangement of RR mentioned in noting b) of Resolution 67 (WRC-12), see also Al 9 Issue 9.1.4.

CEPT Coordinator: Karel Antousek (Czech Republic)



Agenda Item 4 (approved by CPG-15-2)

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.



Agenda Item 7 (drafted by CPG PTB-2)

Preliminary CEPT position:

CEPT supports full clarity in the Radio Regulations to the Bureau's procedure for publishing and making available information relating to bringing into use and suspension of frequency assignments of satellite networks. CEPT proposes to add at the end of Nos. 11.44B and 11.49:

On receipt of the information sent under this provision, the Bureau shall make available that information [as soon as possible] and shall publish it in the BR IFIC [within 180 days. Where the Bureau is not in a position to comply with the time-limit for publication referred to above, it shall periodically so inform the administrations, giving the reasons therefor]

Background:

CEPT is exploring how to bring into the Radio Regulations full clarity in the current Bureau procedure for publication of information relating to the bringing into use and suspension of frequency assignments to satellite networks and is considering the need to specify particular deadlines.



Agenda Item 8 (approved by CPG-15-2)

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 footnotes or new country footnotes

- This agenda item shall not be used for adding country names into footnotes unless in accordance with [further resolves 3] Resolution 26 (Rev. WRC-07);
- Proposals for the addition of new country footnotes for national allocations which are not related to agenda items [shall/should] not be considered by WRC.



Agenda Item 9.1.1 (drafted by CPG PTB-2)

Preliminary CEPT position

CEPT supports the on-going ITU-R studies with a view of having an adequate protection to the MSS band 406-406.1 MHz while not putting undue constraints to the radio services allocated in the adjacent frequency bands.

Background

- 1. RR 5.267, "Any emission capable of causing harmful interference to the authorized uses of the band 406-406.1 MHz is prohibited".
- 2. Commercial land mobile systems operating in the vicinity of the 406-406.1 MHz MSS band planned by some administrations to a greater extent ⇒ enhance <u>concerns regarding</u> <u>possible harmful interference caused by adjacent band emissions into the 406-406.1 MHz band</u>.
- 3. ITU-R WP 4C: preliminary document providing the <u>maximum permissible level of</u> <u>interference</u> for both narrow band emissions and for wide band emissions for the <u>three</u> <u>orbital components: Low Earth Orbiting component, GEO and MEO</u> for the frequency range 390-420 MHz (scope of agenda item 9.1.1)
- 4. On going Studies to adequately address the consequence of aggregate emissions from a large number of transmitters operating in adjacent bands to the operation of search and rescue operations for the LEO, MEO and GEO space components.



Agenda Item 9.1.2 (drafted by CPG PTB-2)

Preliminary CEPT position:

CEPT supports replacing the $\Delta T/T$ criterion by a C/I ratio criterion in applying RR No. 9.41.

CEPT supports introducing pfd levels that, if met, lead to a favourable finding under No. 11.32A. Existing systems having technical parameters that may be more sensitive to interference may require the development of separate, dedicated pfd levels.

Background: Resolution 756 (WRC-12) – Studies on possible reduction of the coordination arc and technical criteria used in application of No. 9.41 in respect of coordination under No. 9.7. Under WRC-12 agenda item 7, CEPT submitted the following proposals:

- reduce the coordination arc to 6 degrees in C band and 5 degrees in Ku band
- replace the DT/T criterion by a C/I ratio criterion in applying No. 9.41
- introduce pfd limits that, if met, leads to a favourable finding under No. 11.32A

WRC-12 decided to:

- reduce the coordination arc to 8 degrees in C band and 7 degrees in Ku band
- adopt Resolution 756 (WRC-12) to call for further studies on these issues



Agenda Item 9.1.3 (drafted by CPG PTB-2)

Preliminary CEPT position:

CEPT follows the ITU-R studies on this aspect.

Background: Resolution 11 (WRC-12) – Use of satellite orbital positions and associated frequency spectrum to deliver international public telecommunication services in developing countries

Following an African common proposal under WRC-12 agenda item 8.1.2, WRC-12 adopted Resolution 11 (WRC-12), which resolves "that ITU-R continue to collaborate with, and provide information when requested by, ITU-D, on satellite technologies and applications as defined in ITU R Recommendations and Reports and on satellite regulatory procedures in the Radio Regulations that will help developing countries with development and implementation of satellite networks and services" and "that ITU R undertakes studies to determine whether it might be necessary to apply additional regulatory measures to enhance the availability of public international telecommunication services delivered through satellite technology".

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CEPT Coordinator: TBD



Agenda Item 9.1.4 (drafted by PTA-2)

Preliminary CEPT position:

CEPT supports ITU studies on the issue. Any revision in texts of the Radio Regulations should not lead to any difficulty in the interpretation and its implementation.

Background:

WRC-12 adopted a Resolution which resolves to initiate studies for possible updating, review and possible revision of outdated information, and rearrangement of certain parts of the Radio Regulations, except for Articles 1, 4, 5, 6, 7, 8, 9, 11, 13, 14, 15, 16, 17, 18, 21, 22, 23 and 59 and those parts which are being revised on a regular basis, as appropriate.

CEPT Coordinator: Olga Slyusar (Russia)



Agenda Item 9.1.5 (drafted by CPG PTB-2)

Preliminary CEPT position:

CEPT will consider any ITU-R studies on possible technical and regulatory measures in some countries in Region 1 to support the existing and future FSS earth stations in the 3400-4200 MHz band used for satellite communications related to safe operation of aircraft and reliable distribution of meteorological information, before deciding on a more detailed position.

Background: Resolution 154 (WRC-12) — Consideration of technical and regulatory actions in order to support existing and future operation of fixed satellite service earth stations within the band 3 400-4 200 MHz, as an aid to the safe operation of aircraft and reliable distribution of meteorological information in some countries in Region 1

• Following an African common proposal under WRC-12 agenda item 8.2, WRC-12 adopted Resolution 154 (WRC-12), which resolves to invite ITU-R "to study possible technical and regulatory measures in some countries in Region 1 to support the existing and future FSS earth stations in the 3 400-4 200 MHz band used for satellite communications related to safe operation of aircraft and reliable distribution of meteorological information referred to in considering c)".

CEPT Coordinator: TBD



Agenda Item 9.1.6 (approved by CPG-15-2)

Preliminary CEPT position:

CEPT is of the view that there is no need to modify the existing definitions of fixed service, fixed station and mobile station. Furthermore CEPT opposes any modification which may have any negative regulatory impact on existing allocations to radiocommunication services.

Background:

WRC-12 adopted a Resolution which resolves to review the definitions of fixed service, fixed station and mobile station for possible modification. The implementation of any new or modified definition should be in agreement with the system of RR definitions to ensure absence of (logical) contradictions between existing and modified (new) definitions.

CEPT Coordinator: Anders Jonsson (Sweden)



Agenda Item 9.1.8 (approved by CPG-15-2)

Preliminary CEPT position:

CEPT supports the ITU-R studies on this aspect.

Background:

Following proposals from 12 CEPT members, WRC-12 decided to put on the WRC-18 preliminary agenda the issue of nano- and picosatellites: "2.2 the appropriate regulatory procedures for notifying satellite networks needed to facilitate the deployment and operation of nano- and picosatellites, in accordance with Resolution 757 (WRC 12)". Resolution 757 (WRC-12) invites ITU-R to undertake the relevant studies and furthermore instructs the Director of the Radiocommunication Bureau to report to WRC-15 on the results of these studies.



Agenda Item 9.2 (Satellite part) (drafted by CPG PTB-2)

Preliminary CEPT position

CEPT will gather any difficulties or inconsistencies encountered by its members in their application of the provisions of the Radio Regulations related to space procedures. CEPT will afterwards bring them to the attention of the Radiocommunication Bureau so that they may be included in the Director's Report to WRC-15.

CEPT Coordinator: TBD



Agenda Item 9.3 (drafted by CPG PTB-2)

Preliminary CEPT position:

CEPT follows the ITU-R studies on this aspect.

CEPT Coordinator: TBD



Agenda Item 10 (drafted by CPG PTA-2)

Preliminary CEPT Position:

CEPT will gather proposals for future WRC agenda items in the spring/summer 2013, where the work will commence at the CPG PTA in September.

CEPT would welcome information from other regional preparatory groups on potential proposals for the WRC-18 Agenda.



Agenda item yet to be addressed:

• AI 9.1.7



Next meetings

CPG will meet on 23-26 September 2013, Zagreb (Croatia)

Its next project team meetings are:

- 2nd PTC: 16-19 April 2013, London (UK)
- 3rd PTD: 6-8 May 2013, Berlin (Germany)
- 3rd PTB: 21-23 August 2013, Copenhagen (Denmark)
- 3rd PTA: 3-5 September 2013, Budapest (Hungary)
- 3rd PTD: 6-8 May 2013, Berlin (Germany)

We look forward to welcoming representatives from the other Regional Organisations to these meetings



Useful links:

General information: http://www.cept.org/ecc

CPG page: http://www.cept.org/ecc/groups/ecc/cpg

Coordinators: http://www.cept.org/ecc/groups/ecc/cpg

CEPT Briefs/ECPs:

http://www.cept.org/ecc/groups/ecc/cpg/page/cept-briefs-and-ecps-for-wrc-15



THANK YOU