**Report of the World Radiocommunication Conference WRC-12   
(23 January – 17th February)**

The World Radiocommunication Conference (WRC-12) chaired by Mr. Tariq al Awadhi of the United Arab Emirates was opened on 23 January 2012. ECC published reports of the first, second and third weeks. This document provides an overview of the overall activities of the WRC-12.

7 Committees were established by WRC-12 to undertake relevant responsibilities during the conference:

Committee 1: Steering Committee

Committee 2: Credentials Committee

Committee 3: Budget Control Committee

Committee 4, 5 and 6: Specified Agenda Items Committees

Committee 7: Editorial Committee

***Responsibilities of Committees 4, 5 and 6 were identified as follows:***

Committee 4: WRC-12 Agenda Items 1.3; 1.4; 1.7; 1.9; 1.10; 1.14; 1.15; 1.21; 1.23; 3; 5; 8.1.1; 8.1.2.

Committee 5: WRC-12 Agenda items 1.5; 1.6; 1.8; 1.11; 1.12; 1.13; 1.16; 1.17; 1.18; 1.20; 1.24; 1.25; 3; 5; 7; 8.1.1; 8.1.2; 8.1.3.

Committee 6: WRC-12 Agenda items 1.1; 1.2; 1.19; 1.22; 2; 3; 4; 5; 6; 8.1.1; 8.1.2; 8.2.

In addition to these committees, an ad-hoc group of the Plenary, under Canadian Chairmanship, was created during the first week of the Conference to consider possible amendments to Article 15 of Radio Regulations dealing with some basic principles of interferences.

The Ad hoc Group held six meetings. After considerable debate on the relative merits of amending Nos. 15.1 and 15.21, it was agreed that a revision to the text of No. 15.21 was warranted, which clearly reflected the substance of the issue under consideration.

Two key questions were resolved by the discussion, which facilitated agreement on the final text of No. 15.21. The first was that any transmission which has the intent to cause interference to stations of other administrations is an infringement of the Constitution, Convention or Radio Regulations. The second question requested confirmation that any station operating in the territory of an administration is under the authority of this administration, even if this station is not authorized. This was also confirmed, since the authority of an administration of the country having jurisdiction over any station applies throughout its territory.

**AI 1.1**. (WG 6B) *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-07);*

The consideration of 1.1 was finalised on Friday at COM 6 level. The document 397 containing all the proposals on footnotes was considered and approved by COM 6. There are around 270 proposals considered under AI 1.1 resulting in modification of 122 footnotes of Article 5.

There was only one unresolved issue with regard to addition of Algeria into N 5.312 due to opposition of Spain and Morocco.

It should be noted that due to preparation of the texts in different languages the attention of administrations has to be paid to correct interpretation of their proposals.

Document 474 was considered and approved by plenary meeting on 14th February in a first reading. Italy reserved its position on the document pending an inclusion of its country name into footnote 5.316A under AI 1.17.

Document 512 was approved by afternoon session of plenary meeting on 14th February in a second reading without footnotes 5.312 and 5.316A. In the early morning on 16th February WRC-12 decided not to include Algeria in the footnote 5.312 and Italy, Tunisia in the footnote 5.316A.

**AI 1.2** (WG 6A)*Taking into account the ITU‑R studies carried out in accordance with Resolution****951 (Rev.WRC‑07)****, to take appropriate action with a view to enhancing the international regulatory framework.*

The work on AI 1.2 has been finished within WG6A at the beginning of the third week and took more than a week waiting time for the consideration of pending issues A and B at COM 6 level. Taking into account the very diverging views expressed on this item by the various regional organisations, the issue was resolved within an informal group led by the Chairman of the Conference. The resulting decisions taken by the Conference are the following:

**Issue A** (Terrestrial convergence, in particular fixed and mobile):

- No change to the volumes 1 and 2 of the RR at WRC-12. In particular, the services and stations definitions in RR Article 1 are unchanged.

- A new WRC Resolution has been agreed. It calls for the continuation of the ITU-R studies specifically in relation to the review of the definitions of the fixed service, fixed station and mobile stations. The results of these studies will be included in the report of the Director of the BR to WRC-15 for consideration and action, if appropriate.

**Issue B** (General allocation issues):

WRC-12 agreed on a revision to Recommendation 34 (WRC-95) on the principles for the allocation of frequency bands. The modifications are based on the text initially proposed by CEPT towards the development of a new WRC Resolution on the subject.

**Issue C** (Convergence between satellite services): this issue had been solved during the 1st week with a NOC.

**Issue D** (future of Resolution 951): In addition, WRC-12 agreed to suppress the Resolution 951 on enhancing the international spectrum regulatory framework.

**AI 1.3** (WG 4B) *To consider spectrum requirements and possible regulatory actions, including allocations, in order to support the safe operation of unmanned aircraft systems (UAS), based on the results of ITU‑R studies, in accordance with Resolution****421 (WRC‑07).***

The Agenda Item 1.3 was considered in terms of terrestrial and satellite components:

***Terrestrial Component***

WRC-12 concluded on a new allocation to the Aeronautical mobile (R) service in the band 5030 – 5091 MHz limited to the operation of UAS

The European proposal on a possible allocation to the aeronautical mobile (R) service in the band 15.4 – 15.5 GHz faces still strong opposition. Especially from those administrations, which promote a 300 MHz wide allocation under AI 1.21. At the end of the third week it was obvious that an allocation to the aeronautical mobile (R) service even as a regional allocation would not be accepted by the conference.

During a CEPT meeting it was therefore decided to offer a compromise to the US delegation in order to achieve globally harmonised solutions in AI 1.3 (no allocation at 15 GHz), AI 1.21 (allocation of the band 15,4 – 15,7 MHz to the Radiolocation service) and AI 1.4 Res. 420 (no allocation to the aeronautical (R) service in the band 5 000 – 5 010 MHz). This compromise helped avoid any threat for the European Satellite Navigation system Galileo from other services in the band 5 000 – 5 010 MHz.

***Satellite component***

The proposal contained in document 98 was redrafted by the proponents to take into account concerns raised during the discussion. The basic problem of the proposal to use certain bands allocated to the fixed satellite service (FSS) for the command a non payload communications of UAV, that the compatibility with was terrestrial services in these bands is not yet studied.

For the satellite component a new agenda Item for WRC-15 was developed. The new Agenda Item is intended to study a possible use of frequency bands allocated to the fixed-satellite service for the operation of UAS under Resolution COM6/13 (WRC‑12) (see also AI 8.2).

***AI 1.4.*** (WG 4B) *to consider, based on the results of ITU‑R studies, any further regulatory measures to facilitate introduction of new aeronautical mobile (R) service (AM(R)S) systems in the bands 112-117.975 MHz, 960-1 164 MHz and 5 000-5 030 MHz in accordance with Resolutions****413 (Rev.WRC‑07)****,* ***417 (WRC‑07)*** *and* ***420 (WRC‑07).***

Based on ICAO/ITU-R studies, CEPT was of the opinion that no harmful interference would arise from the introduction of AM(R)S systems in the band 112-117.975 MHz (Res. 413) into FM broadcasting receivers below 108 MHz. Resolution 413 was amended and reflecting the results of ongoing studies concerning the interference from digital broadcasting sound systems into AM(R)S. These studies will be dealt with under traditional ITU-R activities outside the WRC process.

The revised version of Resolution 413 ”Use of the band 108-117.975 MHz by the aeronautical mobile (R) service ” was the first adopted in the second reading by the Plenary in the first week.

In the second week, Resolution 417 was approved on Working Group level. The coordination process between AM(R)S and the non ICAO ARNS systems, resulted in a lot of discussion mainly between the RCC, China and Korea, as did the re-integration of ICAO standardized Universal Access Transceiver system. It appeared to fall out of the Resolution. This time it was the RCC and the United States arguing. This band can now be further developed for the use of Future Communication Systems.

At the end of the third week of the Conference, this agenda item was approaching its end. After being sent back to the sub-working group where no solution was achieved, the informal discussions with the US delegation and African countries have been initiated again, leading to a support for no change for Resolution 420 at COM 4 level. This was a major achievement for the protection of the Galileo system. Two other Agenda Items (1.3 and 1.21) took part in a package deal. Europe will no longer propose a UAS allocation in the 15 GHz and supports a worldwide allocation to Radiolocation service of 300 MHz in the 15.4 – 15.7 GHz under Agenda item 1.21. Finalisation took place on Tuesday, 14th February in the last week of the Conference.

The achievements for all three parts of this agenda item, were in line with the CEPT position.

**AI 1.5** (WG 5C)*to consider worldwide/regional harmonization of spectrum for electronic news gathering (ENG), taking into account the results of ITU‑R studies, in accordance with Resolution****954 (WRC‑07)***

COM5 agreed on the work which was done concerning AI 1.5 in its meeting on 9th February. Document went through the Plenary without difficulties. *Resolution*954 (WRC‑07) was supressed.

During the last week several additional countries requested to add their names to footnote 5.296. Amongst them 42 new countries from Region 1 asked for the addition to the footnote in total.

The Russian Federation (RUS) could successfully finish all but one of the bilateral negotiations concerning the addition of country names sharing borders with RUS to the footnote. Negotiations with one country continued during the last week of the Conference and have been finalised with signing of agreement.

**AI 1.6** (WG 5A) *to review No.****5.565*** *of the Radio Regulations in order to update the spectrum use by the passive services between 275 GHz and 3 000 GHz, in accordance with Resolution****950 (Rev.WRC‑07)****, and to consider possible procedures for free-space optical-links, taking into account the results of ITU‑R studies, in accordance with Resolution****955 (WRC‑07)****;*

COM 5 agreed to the modifications of footnote 5.565. Identification to passive services was extended up to 3000 GHz. The use of the range 275-3 000 GHz by the passive services does not preclude use of this range by active services. Administrations wishing to use frequency range 275 – 1000 GHz by active services are urged to take all practicable steps to protect passive services from harmful interference.

Resolutions 950 and 955 were supressed. Conclusions of the COM 5 are fully in line with ECP on AI 1.5.

These modifications were agreed by the plenary meeting on Wednesday, 1st February in the second reading.

**AI 1.7** (WG 4B)*to consider the results of ITU‑R studies in accordance with Resolution****222 (Rev.WRC‑07)*** *in order to ensure long-term spectrum availability and access to spectrum necessary to meet requirements for the aeronautical mobile-satellite (R) service, and to take appropriate action on this subject, while retaining unchanged the generic allocation to the mobile-satellite service in the bands 1 525‑1 559 MHz and 1 626.5-1 660.5 MHz*

During the third week of the conference SWG 5 was able to develop a compromise on a modified Resolution 222, an Annex to this resolution providing theprocedures how to implement No. 5.357A and Resolution 222 (Rev.WRC-12) and a new resolution (Resolution COM 4/1) on the development of methodology to calculate aeronautical mobile-satellite (R) service spectrum requirements within the frequency bands 1 545-1 555 MHz (space-to-Earth) and 1 646.5-1 656.5 MHz (Earth-to-space). The documents as developed in the SWG 4B3 were approved by COM 4 and were also already approved in the second reading at the 7th Plenary of the Conference.

The documents developed are mainly based on the various proposals from administrations and regional organisations. The main discussion took place with regard to transparency issues, the Reassessment meeting issues and the participation of ICAO and BR in the Reassessment meeting as proposed in the ECP. Regarding transparency, the notifying administrations shall inform BR about the total amount of spectrum assigned to AMS(R)S systems after each frequency coordination meeting where the total AMS(R)S assignments are affected. Furthermore, at the conclusion of the Reassessment Meeting, a report containing information about the issue discussed and the conclusions shall be prepared by the participating notifying administrations and submitted to BR for publication. In line with the ECP, in case a notifying AMS(R)S administration is of the opinion that its spectrum requirements have not been met in the frequency coordination process as per No. **5.357A**, the notifying administration may notify the Director of BR and request that a Reassessment Meeting be called. However, as a compromise, ICAO and BR, apart from the notifying administrations, are not invited to take part in the Reassessment Meeting but only if all notifying administrations may decide to invite other parties or BR in an advisory role. If the Reassessment Meeting concludes that the AMS(R)S spectrum requirements of the concerned system have not been met, the Reassessment Meeting may call for an additional specific frequency coordination meeting of the notifying administrations of mobile-satellite networks. The developed documents are not fully in line with the proposals made in the ECP; however, the compromise is a good way forward to solve the issue.

**AI 1.8** (WG 5C) *to consider the progress of ITU‑R studies concerning the technical and regulatory issues relative to the fixed service in the bands between 71 GHz and 238 GHz, taking into account Resolutions****731 (WRC‑2000)*** *and****732 (WRC‑2000).***

After a number of informal meetings and challenging discussions with other regions, a compromise from the original position (CEPT/China against APT, ARAB, ATU and CITEL) has been agreed. This compromise from mandatory unwanted emission limits to recommended levels for the FS in 81-86/92-94GHz bands was initiated within CEPT. The compromise agreed involves;

 (a)    Changes to Article 5 and Resolution 750 (WRC-07) to include recommended unwanted emission power levels for FS in the 81-86/92-94GHz bands for compatibility with the EESS in the 86 - 92GHz band including an additional footnote for those administrations who wish to develop alternative recommended levels for these bands.

(b)   Some modifications to the Resolutions 731 & 732 (WRC-00) that provide framework for continuation of studies on active services (including FS) requirements/developments in the bands above 71GHz for action at a future conference.

These proposals were under consideration at Committee 5 level(week 3) and subsequently went through first and second reading at plenary level early week 4. One Region reserved their position at WG5C level on the appropriateness of these recommended levels and indicated that they may come back to this on this issue at Committee 5 level. However, informal discussions had indicated that the compromise will be accepted by all.

Document 354 was approved at the COM 5 level on Monday, 13th February. Document 503 containing text on this Agenda Item was approved in first and second reading on Wednesday 15th February.

**AI 1.9** (WG 4C) *to revise frequencies and channelling arrangements of Appendix 17 to the Radio Regulations, in accordance with Resolution****351 (Rev.WRC‑07)****, in order to implement new digital technologies for the maritime mobile service*

SWG 1.9 met in total 12 times since the start of the Conference and had intensive discussions on how to merge both Methods A1 and A2 of the CPM Report in order to satisfy the future requirements of the maritime community, in an era where NBDP and Morse telegraphy is in rapid decline.

The SWG had the assistance of a Drafting Group which was tasked to work on “technical elements” (e.g. putting together a new channelization arrangement with 3 kHz channels and freeing some parts from channelization) for an acceptable revised APP 17. All parties involved expressed their satisfaction on the proposals for integration of the most difficult parts in both Methods A1 and A2. CEPT’s primary requirement was to free the so called Block 7 from channelization and by doing so to create several bands freed from channelization in the 4, 6, 8, 12, 16, 18/19, 22 and 25/26 MHz range which can be used (in future) by new digital technologies / systems.

Discussions were also focused on relevant regulatory elements: formulation of applicable and relevant footnotes to the several band of APP 17, resolution on implementation of the revised APP 17, how to inform the IMO, implementation date: (either 2015 or 2017), and the formulation of requirements related to the use of frequencies for data transmissions

All these elements have been discussed and agreed. Unfortunately the implementation of the new revised APP 17 has been set for 1.1.2017, and by agreeing on this, spectrum will be released from analogue services 2 years later than originally proposed in the ECP.

In practice no real problems are expected. Any new systems can work on the “newly created bands” under the condition of non-interference. And we don’t expect real interference, other perhaps than in some “special places” on earth.

Discussions were concluded in a first reading at Plenary during third week of the Conference and then went smoothly through the second reading in Plenary meeting on 14th February.

Summarising: CEPT goals were reached and the work has been successfully concluded.

**AI 1.10** (WG 4C) *to examine the frequency allocation requirements with regard to operation of safety systems for ships and ports and associated regulatory provisions, in accordance with Resolution****357 (WRC‑07)***

WRC-12 has adopted for Agenda item 1.10 the following:

Issue A: Allocation to services for Channel AIS 1 and AIS 2. An allocation table based on regional compromise activities was finalised with regional differences. The outcome for the user is equal.

Issue B: Allocation of channels 75 and 76 to the mobile-satellite service (Earth-to-space) for the transmission of AIS message 27 from ships. Regions 1 and 3 have a secondary allocation for MSS (Earth-to–space) and a primary allocation for MSS (Earth-to-space) in Region 1.

Issue C: Broadcast of safety and security information for ships and ports. Exclusive worldwide allocation to the maritime mobile service in the frequency band 495-505 kHz band.

Issue D: Appendix 18 revision. A digital band has been identified in Appendix 18, which size depends on regional requirements. As compensation four duplex channels will be transferred to simplex channels. A Channel for future safety related applications has been identified. National requirements during the transition phase due to coordination between affected administrations had been taken into account. The final date of implementation has been decided as 1 January 2017.

Resolutions 357 and 342 were suppressed.

***AI 1.11***(WG 5A) *to consider a primary allocation to the space research service (Earth-to-space) within the band 22.55-23.15 GHz, taking into account the results of ITU‑R studies, in accordance with Resolution****753 (WRC‑07)*** *(item 1.11);*

The following two options were considered from the beginning of the Conference:

* Option 1 (supported by the majority of regional organisations) that primary allocation to the space research service (Earth-to-space) within the band 22.55-23.15 GHz should be done by inclusion of this allocation to Article 5 of RR. It is proposed to add a footnote dealing with separation distances of at least 54 km of earth stations in the space research service from the respective border of neighbouring administrations to protect the existing and future deployment of fixed and mobile services. Band 22.55-23.15 GHz should be included in Article 21.
* Option 2 (supported by Arab Administrations) states that a secondary allocation to the space research service (Earth-to-space) within the band 22.55-23.15 GHz should be made.

The agreement was reached in accordance with Option 1, supported by the majority of administrations. Footnote 5.A111 was added to reflect protection requirements for existing services. This decision was adopted by WRC-12. Resolution 753 was supressed (see document 358).

**AI 1.12** (WG 5A) *to protect the primary services in the band 37-38 GHz from interference resulting from aeronautical mobile service operations, taking into account the results of ITU R studies, in accordance with Resolution 754 (WRC-07).*

After internal consultations, CITEL accepted to join the majority of proposals in favor of Method A (limiting the mobile allocation to land and maritime mobile by excluding the aeronautical mobile from the band 37-38 GHz). Agenda item 1.12 may be considered as finished, with results fully in line with the ECP. AI 1.12 was approved by plenary meeting on Friday 3rd February in a first reading.

Document went smoothly through the second reading at the plenary meeting on Friday 10th February.

**AI 1.13** (WG 5B) *to consider the results of ITU‑R studies in accordance with Resolution****551 (WRC‑07)*** *and decide on the spectrum usage of the 21.4-22 GHz band for the broadcasting-satellite service and the associated feeder-link bands in Regions 1 and 3*

* Issue A (intra-service sharing). A compromise solution was found with all regional groups including Iran. In addition to the method already approved second week (i.e. Methods A (baseline – First come first served), B (new due diligence), C (reduced coordination arc) and F (Resolution encouraging each admin to reduce their number of filings)), a PFD mask was approved to facilitate coordination between network system and additional measures were approved to facilitate the access to the 21.4-22 GHz band for administrations which have no filing in this band. This special procedure will only be applied by an administration to cover its territory. This procedure will permit to jump the pending examination coordination queue (i.e. all networks for which the coordination request is not yet published by the BR) and to apply a special PFD mask which will permit to facilitate the coordination with system networks already under coordination stage which are not applying such a special procedure. In this compromise, the queue jumping (jump the network under coordination) as proposed by some administrations and the limitation of number of filings per year were not retained. The final text was approved at the WG 5B level and will be discussed Monday on COM 5.
* Issue B (feeder-link). As expected, ASMG agree to the new uplink allocation of the band 24.65-25.25 GHz for FSS (Earth-to-Space).

Documents 504, 531 and 532 containing text on this Agenda Item was approved in first and second reading on Wednesday 15th February.

**AI 1.14** (WG 4A)*to consider requirements for new applications in the radiolocation service and review allocations or regulatory provisions for implementation of the radiolocation service in the range 30‑300 MHz, in accordance with Resolution****611 (WRC‑07)***

It was decided to allocate on a primary basis frequency band 154 – 156 MHz in different countries of Regions 1 and 3. Protection of the fixed and mobile service stations will be ensured by the provision of 9.21. Criteria were agreed to define potentially affected administrations in Regions 1 and 3. Footnote also contains provisions to protect MMS safety systems as it was proposed by CEPT. The document was considered at the plenary meeting in the first reading. It was decided to make editorial changes, and to remove Moldova from the list of countries.

Moldova expressed their concern about allocation in Ukraine. Frequency assignments to the radiolocation service under this allocation in Ukraine shall not be used without the agreement of Moldova. Resolution 611 was supressed. Document 332 went through the second reading at the plenary meeting on Friday 10th February.

**AI 1.15** (WG 4A) *to consider possible allocations in the range 3-50 MHz to the radiolocation service for oceanographic radar applications, taking into account the results of ITU‑R studies, in accordance with Resolution****612 (WRC‑07)***

On Thursday 9th February, COM4 approved the outputs from 4A relative to Agenda Item 1.15, with global allocations to radiolocation in the following bands: 4438-4488 kHz, 5250-5300 kHz, 9300-9355 kHz (except R2), 13450-13550 kHz, 16100-16200 kHz, 24450-24600 (24650 in R2) kHz and 26200-26350 (26420 in R2) kHz.

These allocations are secondary in Regions 1 and 3, and primary in Region 2. In Region 1, some RCC countries and Austria have opted out from the radiolocation allocations through footnotes.

Additional allocations are provided in the upper frequency range as follows:

- Region 1: 39-39.5 MHz and 42-42.5 MHz (except CEPT countries which signed the ECP on AI 1.15) on a secondary basis

- Region 3: 39.5-40 MHz on a primary basis

- US and the Republic of Korea: 41.015-41.665 MHz and 43.35-44 MHz on a primary basis (by footnote)

All the new allocations to radiolocation are subject to Resolution 612 which indicates coordination distances in the various frequency bands. Wherever the status of the radiolocation service equals the incumbent fixed or mobile service status, a footnote indicates that stations in the radiolocation service shall not cause harmful interference to, nor claim protection from, stations operating in the fixed or mobile services.

During the COM4 - as in all the previous meetings on AI1.15 - Iran tried to insert in the Resolution 612 a Resolves 7 ensuring an additional protection level for Iran (I/N of -10 dB no more than 1% of the time) for PPDR applications, but there was no support for such provision.

The text presented after editorial Committee reading was approved by plenary meeting on Friday, 10th February in the first reading. The text was approved in a second reading by plenary meeting on Tuesday, 14th February.

**AI 1.16.** (WG 5A) *to consider the needs of passive systems for lightning detection in the meteorological aids service, including the possibility of an allocation in the frequency range below 20 kHz, and to take appropriate action, in accordance with Resolution****671 (WRC‑07)***

The conference approved the primary allocation for Met Aids in the band 8.3-11.3 kHz for passive application. Arab group initially opposed the allocation for Met Aids in the band below 9KHz and they had proposed this allocation through a footnote. After further discussions a compromise was reached and their concerns were addressed by adding their country names to the footnote, highlighting additional allocations in those countries.

Regulatory text on the agenda item went through second reading at plenary on 10th February without any changes to the text.

The work on this agenda item was completed and the outcome was fully in-line with CEPT objective.

**AI 1.17**. (WG 5C) *to consider results of sharing studies between the mobile service and other services in the band 790-862 MHz in Regions 1 and 3, in accordance with Resolution* ***749 (WRC‑07)****, to ensure the adequate protection of services to which this frequency band is allocated, and take appropriate action*

*AI 1.17 issues:*

Relating to the broadcasting service, a consensus was reached on the option associated to Method A1 (no change in the geographic area of the Geneva 2006 Agreement). This consensus was to include in Resolution 749, a text recognizing that ITU-R has initiated studies related to Resolution 224 (taking into account the cumulative effect of base stations) and that the objective is to achieve ITU-R Reports and Recommendations. This way out is a minor inflection of the CEPT position, due to a compromise reached between on the one hand Iran and RCC and on the other hand, other countries party to the Geneva 2006 Agreement.

Regarding the aeronautical radionavigation service, there was an early consensus on the method in second week of the Conference. The bilateral discussions between Romania and Ukraine have been successfully concluded at the last week of the Conference with signing an agreement.

Footnote 5.316 has not been modified.

Footnote 5.316A was modified in a following way:

* the following regulatory provision removed: " However, stations of the mobile service in the countries mentioned in connection with each band referred to in this footnote shall not cause unacceptable interference to, nor claim protection from, stations of services operating in accordance with the Table in countries other than those mentioned in connection with the band";
* the following regulatory provision removed: "Frequency assignments to the mobile service under this allocation in Lithuania and Poland shall not be used without the agreement of the Russian Federation and Belarus";
* Reference to Resolutions 224 (Rev.WRC-[12]) and 749 (Rev.WRC 12) have been added;
* date of generic mobile allocations in the 790-862 MHz band was kept to 15th June 2015.

Document 503 containing text on this Agenda Item except footnote 5.316A was approved in first and second reading on Wednesday 15th February. The text for the footnote 5.316A was approved early in the morning 16th February, country names of Italy and Tunisia have not been added (see also AI 1.1).

***On the Ad-hoc Commission 5:***

The chairman of the Ad-hoc group COM5 has delivered its report to Committee 5. The body of the Report (document 312) gathers the main information from the two parties.

Following the work of the group Ad-hoc, informal discussions on the extension of the mobile allocation below 790 MHz was held intensively between the protagonists (i.e. CEPT, RCC, ASMG, ATU and President of the Conference). The Chairman of the conference submitted on Friday 10th February a proposal which was broadly accepted by the regional organization and reviewed in an informal drafting group on Sunday 12th February. This compromise is based on the following elements:

* Footnote in the article 5 making a reference to a Resolution COM5/10 (WRC-12) “Use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service in Region 1 and related studies”
* No country footnote for an additional allocation, no change in the allocation Table
* Resolution COM5/10 (WRC-12):
  + Allocation of the band 694-790 MHz to the mobile service on a co-primary basis with other services and identification to IMT.
  + The allocation will be effective immediately after WRC-15.
  + WRC-15 will refine the lower edge of the allocation.
  + WRC-15 will specify the technical and regulatory conditions for such allocation.

New AI was added to the Agenda of WRC-15 based on the outcome of regional discussions: considered under to consider results of ITU-R study under Resolution COM5/10 and present its results to the consideration of the WRC-15 (see also AI 8.2).

**AI 1.18** (WG5B) *to consider extending the existing primary and secondary radiodetermination-satellite service (space-to-Earth) allocations in the band 2 483.5-2 500 MHz in order to make a global primary allocation, and to determine the necessary regulatory provisions based upon the results of ITU‑R studies, in accordance with Resolution****613 (WRC‑07)***

The following issues were under discussion during the fourth week of the WRC-12:

Debate on footnote 5.399 was reopened during the first reading of the 1.18 document in Plenary. A drafting group including the BR Director and other senior Spaces Services staff addressed the issue and additional wording on notification information and reference to the footnote 5.B118 was added to satisfy Russian concerns.

The new global primary RDSS allocation was achieved with the CPM proposed coordination threshold pfd levels for MSS and RDSS in Table 5-2 of Appendix 5. RDSS and MSS (Galileo and Globalstar) had previously reached an agreement on relaxation to pfd threshold levels, which were supported by CITEL, CEPT and other countries that are now included in a new "NOTE X" allowing the higher threshold pfd values to be applied over their territory. RCC, Arab group, India and China are not in the NOTE X.

Document 504 containing text on this Agenda Item was approved in first reading on Wednesday 15th February without footnote 5.399 and NOTE X which were approved on second reading in the documents 538 and 541.

**AI 1.19** (WG 6A) *to consider regulatory measures and their relevance, in order to enable the introduction of software-defined radio and cognitive radio systems, based on the results of ITU‑R studies, in accordance with Resolution****956 (WRC‑07)***

**Issue A** (Software defined radio): COM 6 concluded that no changes to the Radio Regulations are necessary on Issue A and to suppress Resolution 956 (WRC-07). This went through the plenary meeting on Friday, 3rd February.

**Issue B** (Cognitive Radio): Further progress was achieved on Issue B. COM 6 concluded that no Changes to the Radio Regulation are necessary on Issue B and to supress Resolution 956 (WRC-07). Further it has been agreed in COM 6 that there is no need for a WRC-12 Resolution.

Two options were discussed to take the concerns of one region into account:

1) A text developed at COM 6 level for inclusion in the Report of the Plenary on deployment and use of cognitive radio systems;

2) A WRC-12 Recommendation.

After further informal exchange of views a compromises was reached between all regions:

- The content of a WRC-12 Recommendation was agreed and adopted at COM 6

- No text will be presented by COM6 to the Plenary for inclusion in the Report of the Plenary on deployment and use of cognitive radio systems.

With this the matter concerning A.I. 1.19 is solved and the Final results are:

**Issue A** (SDR): NOC and SUP of Resolution 956

**Issue B** (CRS): NOC and SUP of Resolution 956, adoption of a WRC Recommendation.

Document 505 was discussed and approved in first and second reading at the plenary meeting on Tuesday 14th February.

**AI 1.20** (WG 5C)*to consider the results of ITU‑R studies and spectrum identification for gateway links for high altitude platform stations (HAPS) in the range 5 850‑7 075 MHz in order to support operations in the fixed and mobile services, in accordance with Resolution****734 (Rev.WRC‑07)***

Drafting group being part of SWG 5C 1.20 developed a text of the new footnote 5.A120 amended by Resolution [A120-HAPS-NATIONAL USE] (WRC-12) which was added in order to specify technical conditions under which this footnote allocation will be used on a national basis.

Footnote 5.A120was addedby the SWG 5C AI 1.20 saying that In Australia, Burkina Faso, Cote D’Ivoire, Nigeria and Mali, the allocation to the fixed service in the bands 6 440-6 520 MHz (HAPS-to-ground direction) and 6 560-6 640 MHz (ground-to-HAPS direction) may also be used by gateway links for high altitude platform stations (HAPS) within the territory of these countries.

Provision No. 11.26 was amended by the footnote 5.A120. Resolution 734 was removed (see document 26 rev.1).

COM 5 approved document 326 (Rev.3) at their meeting on Monday, 13th February. Document 494 was considered and approved by plenary meeting in first and second reading on Tuesday 14th February.

**AI 1.21** (WG 4A) *to consider a primary allocation to the radiolocation service in the band 15.4-15.7 GHz, taking into account the results of ITU‑R studies, in accordance with Resolution****614 (WRC‑07)***

After the decision to agree on a globally harmonized solution under Agenda Item 1.3 and 1.21 a meeting of the CEPT Heads of Delegation agreed to change the European Position and to support an allocation to the radiolocation service in the band 15,4 – 15,7 GHz.

This step helped to come to a compromise under AI 1.4 which was a major achievement for the protection of the Galileo system.

**AI 1.22** (WG 6A) *to examine the effect of emissions from short-range devices on radiocommunication services, in accordance with Resolution****953 (WRC‑07)***

Method A (NOC in the RR) promoted by CEPT has been approved at COM 6 level pending approval at plenary meeting. Plenary meeting held on Wednesday, 8th February approved the proposal to suppress Resolution 953 (WRC-07) in first reading. This Agenda item went through the second reading on Friday 10th February without problems (doc. 427 was late amendment to the plenary Agenda).

**AI 1.23** (WG 4C) *to consider an allocation of about 15 kHz in parts of the band 415-526.5 kHz to the amateur service on a secondary basis, taking into account the need to protect existing services*

COM 4 approved an option containing secondary allocation to the amateur service in the frequency band 472 – 479 kHz. Footnote 5.77 was amended by the following text: “In Azerbaijan, Armenia, Belarus, the Russian Federation, Uzbekistan and Kyrgyzstan, Kazakhstan the allocation of the frequency band 435-495 kHz to the aeronautical radionavigation service is on a primary basis. Meaning that, operation of amateur service should not cause interference to the operation of the aeronautical radionavigation service specified in this footnote.

Two footnotes 5.A123 and 5.B123 were added in order to reflect conditions needed to be fulfilled by this new secondary allocation.

This AI was approved after long debate in first reading at the plenary meeting on Friday, 10th February.

**AI 1.24** (WG 5A) *to consider the existing allocation to the meteorological-satellite service in the band 7 750‑7 850 MHz with a view to extending this allocation to the band 7 850-7 900 MHz, limited to non-geostationary meteorological satellites in the space-to-Earth direction, in accordance with Resolution****672 (WRC‑07)***

At the plenary meeting on Wednesday, 1st February the following decision was approved at its second reading:

1. To make allocation of the band 7 850-7 900 MHz for the meteorological-satellite service, limited to non-geostationary satellites, in the space-to-Earth direction on a primary basis. Accordingly, in the light of the above and the proposals received under this agenda item, Article 5, Article 21 and Appendix 7 of the Radio Regulations are proposed to be amended as shown in Annex.
2. To suppress Resolution 672 (WRC-07).

**AI 1.25** (WG 5B) *to consider possible additional allocations to the mobile-satellite service, in accordance with Resolution 231 (WRC 07);*

Working Group 5B has completed its work on Agenda item 1.25 and concluded the following:

* No change to Article 5 of the Radio Regulations is necessary under Agenda item 1.25.
* To suppress Resolution 231 (WRC-07).

WRC-12, at its 3rd plenary session on Friday 27th January, approved the conclusions of COM 5 on A.I. 1.25 in its first reading. Plenary meeting on 1st February approved text on AI 1.25 in second reading.

The approved conclusions match exactly with the CEPT proposals in document 5A25 (ECP on A.I.1.25).

**AIs 2 and 4***:* AI2 and AI4 *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 the Annex 1 to Resolution****27******(Rev.WRC‑07)****; in accordance with Resolution****95 (Rev.WRC‑07)****, to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation.*

Under Agenda item 2, the CEPT supported update of the references to Recommendation ITU-R M.525-6, and the most recent versions of Recommendation ITU-R M. 493, ITU-R M.627 have been adopted by Committee 6.

The update process of WRC-Resolutions and Recommendations continued (AI 4) during the third week, all NOC proposals from CEPT have been adopted. Some debates took place on a possible update on Res. 224 (Rev WRC-07). Finally an Ad hoc Group discussed the issue of further studies and results of studies in this resolution. This group came to the conclusion that the studies were not completely finalised, hence there is no need to modify the “invites ITU-R” part of the Resolution with regards to Region 1. At the end of the week COM 6 started to finalize the work on Agenda items 2 and 4.

Documents dealing with the revision of WRC-Resolutions and Recommendations were approved in the first and second reading on Tuesday, 14th February.

**AI 7** (WG 5B) *to consider possible changes in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference: “Advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks”, in accordance with Resolution****86******(Rev.WRC‑07)***

Following categorisation of issues was agreed by SWG 53B:

Category 1: Issues 1A, 1C, 1E, 2D, 5A, 5B, 5C, 6C, GSO/NGSO ISL

Category 2: Issues 1B, 1D, 2E, 4A, 4E, 6A

Category 3: Issues 2A, 2B, 2C, 3A, 3B, 4B, 4C, 4D, 4F, 6B

Category 4:

* MODs to No. 9.1
* AP30/30A/30B interim agreements
* Use of modern communications
* Consolidating notices
* AP30B administrations approval
* AP 30B affected administrations
* MODs to 13.6
* New WRC Resolution on force majeure

Category 5 – Other issues from Doc 4.

In Category 1, Issues 1A, 1C, 1E, 2D, 5A, 5B, 5C and 6C have been resolved and the output has been passed to WG5B during the first week of the Conference.

Long and difficult discussions were ongoing on issues in respect of bringing into use (4B), suspension (4C) and due diligence (4D). The SWG has met on both weekends with meetings on both days of the second weekend. The more difficult issues have been discussed in a small group of regional group representatives.

Following issues have been resolved.

* changes to Appendix 4 have been made for the CPM Group 1 issues,
* the coordination arc in C and Ku band has been reduced to 8 and 7 degrees respectively (Issue 2A)
* the list of networks published under No 9.36.2 has been made definitive and not just for information (Issue 2C)
* the processes of resolving interference and completing coordination involving assignments recorded under No 11.41 has been clarified (Issues 3A and 3B)
* suspension provision have been introduced into Appendix 30 and 30A for assignment in the Regions 1 and 3 List of additional uses
* modifications to Recommendation 206 were agreed under Issue 6A
* under Issue 6B, after an agreement between the concerned administrations, WRC-12 agreed that the BR should process Bulgaria's BSS filing at 1.9E
* no Change was agreed for Issues 2B, 5A, 5B, 5C, 6C.

The above issues were approved by plenary meeting in first and second reading during the last week of the Conference.

The following decisions were taken regarding issues 4B, 4C and 4D:

**For bringing into use issue (4B)**: a frequency assignment to a GSO space station shall be considered as either having been brought into use, or having been brought back into use, when a station capable of operating the frequency assignment is deployed and maintained at the notified orbital location for a minimum period of 90 days. The notifying administration shall inform the Bureau that the frequency assignment has been brought into use. The Conference also asked the RRB to develop a rule of procedure addressing the case of in-orbit failure of a satellite before the end of the 90-day period.

**For suspension issue (4C)**: if a frequency assignment is not in use for a period exceeding six months, the notifying administration shall no later than six months from the date on which the use was suspended, inform the Bureau about this suspension. The date on which the suspended assignment is brought back into use shall be no later than three years from the date of suspension.

**Due diligence issue (4D):** NOC

The following text was proposed by COM 5 Chairman for inclusion in the minutes of the Plenary in association with the adoption of provision Nos. 11.44, 11.44.2, and 11.44B:

In case of a satellite failure, especially that of a newly launched satellite, during the 90 days bringing into use period, the notifying administration may submit the case to the RRB for its consideration and careful investigation, taking into account all supporting materials, including details on the satellite that failed, to enable the Board to decide on the matter. The Board is instructed that in parallel with ITU-R study to consider the development of a RoP taking into account the results of the studies, if they become available, to cover the period between WRC-12 and WRC-15.

**AI 8.1** *in accordance with Article 7 of the Convention, to consider and approve the Report of the Director of the Radiocommunication Bureau*

**AI 8.1.1** *(WG 5A/6A) on the activities of the Radiocommunication Sector since WRC‑07 including issues relating to Resolution* ***673 (WRC-07)***

During the first week the Informal Group on Agenda item 8.1.1 Issue A, concluded its work on the issue dealing with the protection of radiocommunication services from ISM equipment interference and proposes the draft revision of Resolution 63 (Rev. WRC 07). The revision of Resolution 63 was approved at Committee 6 level, amendments to considering g) were proposed by the administration of Canada at Plenary during second reading and the document was approved after second reading with no more changes.

Under AI 8.1.1 a second informal group was created within WG6A to deal with the experience in the application of the RR for satellite issues, as well as the proposal included in Annex 1 of ADD 3 of the Report dealing with the Incorporation of Rules of Procedure in footnote 5.410. The group agreed to include in the Minutes of the Plenary that the application of “Different Category of Service” and “Additional Allocation” in Article 5 of the RR would require further examination during the next study period. Additionally COM6 decided to invite the relevant ITU-R Study Group to develop the definitions of radio stations related to the meteorological aids service during the next study period and proposed to consider it under WRC-15 Agenda item 9.1. The proposals included in the Director’s report dealing with

a) the reordering of provision 4.15A dealing with the use of frequencies for HAPS;

b) Appendix 4 Item 11D (Column 11.4) were both accepted. Finally, COM6 agreed with the modification proposed to No. 5.410 and TABLE 21-2 with the consequential suppression of the Rule of Procedure on No. 5.410.

Last set of alignments was approved in first and second reading at the plenary meeting on Tuesday, 14th February including modification of footnote 5.410 and Resolution 145 (Rev. WRC-12) (document 473).

***AI 8.1.1*** *issue C, regarding the revision of Resolution 673 reflecting the importance of Earth observation radiocommunications applications*

The work is finalised and definitively agreed in second reading (document R11) on 8.1.1 issue C, regarding the importance of Earth observation radiocommunications applications. The Resolution 673 was revised in line with ECPs and a new Article 29A was included to refer Resolution 673 in Volume 1 of the RR. Provision 29A.1 reads as follows: “Radio services related to Earth observations include the Earth exploration-satellite service (EESS), meteorological-satellite service (MetSat), meteorological aids service (MetAids) and specific applications of the radiolocation service (e.g. meteorological or oceanographic radars, wind profiler radars). In this respect, see Resolution 673 (Rev.WRC 12)”.

**AI 8.1.2** *(WG 5A/6A/6B) on the inconsistencies, errors and out of date provisions of the Radio Regulations*

The Chairmen of COM4, COM5 and COM6 identified the relevant parts of the Director’s Report to be analysed by different Working Group within each Committee.

It is noted that all proposals presented by Europe on inconsistencies and errors in the Radio Regulations were reflected in ADD2 of the Directors Report.

The proposals dealing with non-satellite issues were discussed within SWG6B2 and all the contributions presented by CEPT were approved at COM6 level. The Canadian administration presented several points that were not included in the Director’s Report some of which, after consideration at the SWG level,were accepted.

Most of the proposals were approved during the third week at the Working Group level, and the Editorial Committee will incorporate them in the Radio Regulations. As a whole COM 6 analysed more than 150 proposals and approved around 100.

The proposal for Suppression of Resolution 124 “Protection of the fixed service in the frequency band 8025-8400 MHz sharing with geostationary-satellite systems of the Earth exploration-satellite service (space-to-Earth)”was discussed and approved.

**AI 8.2** (WG 6C) *To recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, taking into account Resolution****806 (WRC‑07)***

Drafting groups met several times during the third week of the Conference, including the weekend, in order to consolidate and agree on the proposed agenda items for WRC-15 and WRC-18. The discussions have resulted in two draft resolutions covering most of the proposed agenda items. This does not imply any agreement from any group that the issue would become an agenda item for WRC-15 or WRC-18. One of the basic changes is that the previous standard agenda item AI 1.1 became now standalone agenda for every Conference with the new number: AI 8.

The total number of proposed substantial agenda items for WRC-15 is 18. Some items were placed in the draft agenda from COM 4 and COM 5 as a result of their considerations of the agenda items of WRC-12.

There were several issues taken into account when agreeing on the proposed agenda for WRC-15. The guidelines are included in revised Resolution 804. Following modifications proposed for the Resolution 804: “in accordance with No. 90 of the Constitution, the interval between WRCs should normally be every three to four years to ensure that, changes in technology and the requirements of Member States are adequately reflected in conference agendas”. These modifications were approved by COM 6.

Then, the revised Resolution 804 was approved at first and second readings at plenary meeting on Tuesday, 14th February.

Document 530 containing Resolution [COM6/6] “Agenda for the 2015 World Radiocommunication Conference” and Resolution [COM6/7] “Preliminary agenda for the 2018 World Radiocommunication Conference” was approved in second reading by the plenary meeting on Wednesday 15th February. Agenda item 1.2 was added as an outcome of the discussions about extension of the mobile band. This issue will examine the results of the ITU-R in accordance with Resolution COM6/8 (Mobile extension) studies on the use of the frequency band 694 – 790 MHz by the mobile, except aeronautical mobile service in Region 1 and will take appropriate measures.

The issue was raised during the discussion about duration of WRC-15; some countries were in favour of 3 weeks. Finally. the meeting decided to change the wording in the resolves part to “no longer than 4 weeks”. Final decision will be taken by the Council meeting.

Resolution dealing with “Updating and rearrangement of the Radio Regulations” was agreed at COM 6 level. Participants agreed that it is not needed to include this issue in the Agenda for the next conference, but the resolution will give a chance to study this matter (doc. 505).

Resolution [COM6/24] (operation of fixed-satellite service earth stations within the  
band 3 400-4 200 MHz) and recommendation [COM6/2] (Interference management for stations that may operate under more than one terrestrial radiocommunication service) were approved in document 505 at first and second readings on Tuesday 14th February. Documents 506 and 508 were approved on Wednesday 15th February which contained a number of resolutions to support the agenda items placed in the draft agendas of WRC-15 and WRC-18. When discussing the resolution COM6/8 (Mobile extension) it was decided to postpone the decision to the CPM-15-1 meeting on the identification of the leading group for the studies to be conducted by ITU-R on this subject.