XIV MEETING OF PERMANENT CONSULTATIVE COMMITTEE II: RADIOCOMMUNICATIONS INCLUDING BROADCASTING
November 10 to 13, 2009
Washington, DC, United States of America

FINAL REPORT
(Item on the Agenda: 7)
(Document submitted by the Drafting Group)
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The XIV Meeting of the Permanent Consultative Committee II: Radiocommunications including Broadcasting was held in Washington, DC, United States, November 10 to 13, 2009.

I. AGENDA

1. Approval of the agenda and calendar.
3. Working methods of PCC.II.
4. Meeting of the Chairs of the Working Groups on:
   4.1 Working Group on Preparation for Regional and World Radiocommunication Conferences.
   4.2 Working Group on Terrestrial Fixed and Mobile Radiocommunication Services.
   4.3 Working Group on Satellite Systems to Provide Fixed and Mobile Services.
5. Agenda, Venue and Date of the XV Meeting of PCC.II.
6. Other matters.

II. AUTHORITIES OF THE MEETING

Alternate Chair: Mr. Mikhail Marsiglia (Venezuela)
Executive Secretary: Mr. Clovis Baptista (OAS)

Drafting Group:
Chair Ms. Graciela Piedras (CITEL Secretariat)
Members Mr. Jonathan Siverling (United States)
Mr. Jesús Rivera (Venezuela)
III. RESOLUTIONS

PCC.II/RES. 61 (XIV-09)

PROPOSED TIMELINE FOR CITEL WRC-12 PREPARATION

The XIV Meeting of the Permanent Consultative Committee II: Radiocommunications including Broadcasting,

RECOGNIZING:

The need to establish guidance for the work of the Working Group for the Preparation of CITEL for Regional and World Radiocommunication Conferences (WRC),

CONSIDERING:

a) That early submission of IAPs to the last two WRCs kept CITEL at the forefront of discussion on any given Agenda Item;
b) That the number of IAPs submitted to the Conference placed CITEL in a very strong position;
c) That there were several times during the conference when issues were regionalized;
d) That prior preparation strengthened CITEL’s effectiveness;
e) That when attending conference preparatory meetings of other regions, CITEL views are always requested;
f) That in view of the above, the early submission of IAPs to the International Telecommunication Union (ITU) should be a priority for CITEL,

RESOLVES:

1. To establish a timeline for CITEL’s preparation for participation in WRC-12 in accordance with Annex.
2. That this timeline is subject to change depending on budgetary restrictions of CITEL and host countries.
3. That it is possible for the Working Group for the Preparation of CITEL for Regional and World Radiocommunication Conferences (WRC) to meet exclusive of a PCC.II meeting.
4. To ensure that, whenever possible, there is no conflict with conference preparatory meetings of other regional organizations.
5. To revoke Resolution PCC.II/RES. 52 (XII-08).

2 CCP.II-RADIO/doc. 2096/09
ANNEX TO RESOLUTION PCC.II/RES. 61 (XIV-09)

PROPOSED TIMELINE FOR CITEL WRC-12 PREPARATION
(All Months Dependent of Host Country Arrangements)

2009

(PCC-II XIII) June
(PCC-II XIV) November

2010

(PCC-II XV) April
(PCC-II XVI) September

2011

CPM11-2 14-25 February
(PCC-II XVII) May (Limit Meeting – Last Input of New Proposals)
(PCC-II XVIII) September

2012

WRC-12 23 January – 17 February
AGENDA, VENUE AND DATE FOR THE XV PCC.II MEETING

The XIV Meeting of the Permanent Consultative Committee II: Radiocommunications including Broadcasting.

RESolves:

1. To hold the XV Meeting of PCC.II in April 2010 or as decided by the V Assembly of CITEL.

2. To approve the draft agenda for the XV Meeting, that is attached as an Annex or as decided by the V Assembly of CITEL.

ANNEX TO RESOLUTION PCC.II/RES. 62 (XIV-09)

1. Approval of the agenda and calendar.


3. Working methods of PCC.II.

4. Meeting of the Chairs of the Working Groups on:
   
   4.1 Working Group on Preparation for Regional and World Radiocommunication Conferences.
   4.2 Working Group on Terrestrial Fixed and Mobile Radiocommunication Services.
   4.3 Working Group on Satellite Systems to Provide Fixed and Mobile Services.
   4.4 Working Group on Broadcasting.
   4.6 Ad Hoc Group on the Strategic Plan of PCC.II.

5. Agenda, Venue and Date of the XVI Meeting of PCC.II.

6. Other matters.


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3 CCP.II-RADIO/doc. 2146/09
4.1 Working Group on the preparation of CITEL for Regional and World Radiocommunication Conferences

1. Presentation and approval of the agenda.
2. Working methods.
3. Reports of the spokespersons to other organization’s meetings, from Regions Representatives and ITU.
4. Structure of the Working Group, identification of agenda items Coordinators and Rapporteurs and assignment of functions to Coordinators and Rapporteur.
5. Assignment and analysis of documents to the subgroups:
   
   5.1. SGT 1 - Maritime, aeronautical, and radiolocation issues
   5.2. SGT 2 - Fixed, mobile, broadcasting and amateur issues
   5.3. SGT 3 - Science and satellite issues
   5.4. SGT 4 - Future work program and other issues

7. Timeline for WRC-12.
8. Other matters:
   8.1 Strategic Plan of CITEL.
   8.2 Indicators of CITEL Activities.

4.2 Working Group on Terrestrial Fixed and Mobile Radiocommunication Services

1. Approval of the agenda.
2. Project of new Recommendations:
   2.1 Broadband Power Line Communications.
   2.2 White Space in broadcasting bands.
3. Update PCCII Recommendations:
   3.1 Recommendation on very low power devices.
4. Issues under discussion:
   4.1 IMT implementation in Region 2.
   4.2 Available frequencies for emergency situations.
   4.3 Implementation of digital divide in the 700 MHz band.
5. New issues:
   5.1 Broadband Wireless Access (BWA), including convergence between Fixed and Mobile Service.
   5.2 Allocation to Radiolocation Services.
   5.3 Analysis, revision and discussion of issues that appear as a result of technological development (UWB, RFID, low power devices, cognitive radio, etc).
7. Other issues.
4.3 Working Group on satellite systems to provide fixed and mobile services

1. Approval of the agenda.
3. Procedures for authorizing shipboard earth stations (ESV).
4. Implementing regulations that facilitate deployment of satellite services.
5. Harmful interference from unauthorized transmissions in satellite networks.
7. C and Ku band use, operation and applications by CITEL member Administrations.
8. Existing databases on satellite systems.
10. Use of satellite systems for public protection and rescue operations (PPRO).
11. Use of Integrated Systems as an emerging element of Next Generation Networks (NGN).
12. Other business.

4.4 Working Group on Broadcasting

1. Opening remarks.
2. Approval of the agenda.
5. Analysis of the information supplied by the Administrations on the actual and future usage in the Broadcasting TV services.
6. Analysis of the information supplied by the Administrations related to the digital dividend resulting from the analog to digital television switchover.
7. Analysis of the contributions related to the Digital Sound Broadcasting in the Region.
8. Analysis of the information supplied by the Administrations related to the use of “white space” in the spectrum allocated to the television service.
10. Other business.

4.5 Rapporteur Group on the Technical and Regulatory Aspects Related to the Effects of Electromagnetic Non-ionizing Emissions (NIR)

1. Opening remarks and approval of the agenda.
5. Other business.

4.6 Ad Hoc Group on the Strategic Plan of PCC.II

Draft agenda to be confirmed
IV. RECOMMENDATIONS

PCC.II/REC. 27 (XIV-09) 4

NOTIFICATION OF EARTH STATIONS OPERATING IN THE FIXED-SATELLITE SERVICE (FSS) (SPACE-TO-EARTH)

The XIV Meeting of the Permanent Consultative Committee II: Radiocommunications including Broadcasting,

CONSIDERING:

a) That there is extensive use of Fixed Satellite Service (FSS) satellite networks in the Americas;

b) That FSS networks are being implemented in the C-band, Ku-band, and Ka-band FSS allocations in the Americas and worldwide;

c) That some bands used by the FSS are shared with systems in the fixed and mobile services;

d) That receive only earth stations associated with FSS satellite networks in the Americas are becoming more and more numerous, and may receive interference from various sources, including other services operating in the same band; and

e) That existing and future FSS earth stations need to be protected,

NOTING:

a) That the World Radiocommunication Conference of 2007 (WRC-07) adopted footnote 5.431A to the Table of Frequency Allocations in which the band 3 400-3 500 MHz was allocated to the mobile, except aeronautical mobile, service on a co-primary basis, in certain Region 2 countries subject to agreement obtained under No. 9.21;

b) That WRC-07 also adopted footnotes 5.430A, 5.432A, 5.432B, 5.433A to the Table of Frequency Allocations to identify certain parts of the 3 400-3 600 MHz band for use by the International Mobile Telecommunication (IMT) services in Regions 1 and 3;

c) That the fixed and mobile services have a co-primary allocation with the fixed-satellite service in 3 500-4200 MHz in Region 2;

d) That when identifying any administration with which coordination may be required under No. 9.21, the Radiocommunication Bureau (BR) of the International Telecommunication Union (ITU) will only be able to carry out such identification if a specific FSS earth station has been filed with the BR;

e) That Articles 9 and 11 of the Radio Regulations contain the procedures for effecting coordination or obtaining agreement and notification and recording of frequency assignments, including those applicable to specific FSS earth stations;

4 CCP.II-RADIO/doc. 2131/09 rev.3
f) That Appendix 7 of the Radio Regulations establishes coordination distances of terrestrial stations from specific FSS earth stations;

g) That the Radio Regulations Nos. 9.17, 9.17A, 9.27, and 9.29 provide for the coordination of specific earth stations that will lead to notification of FSS earth stations;

h) That it is necessary to provide the appropriate information as listed in Appendix 4 to the Radio Regulations for notification of earth stations,

**RECOGNIZING:**

a) That registration of FSS Earth Stations at the ITU can provide a basis for protection of earth stations close to international borders;

b) That Administrations and other organizations are seeking information on how to best implement and improve the protection of FSS earth stations;

c) That it is advantageous to share information among CITEL’s Member States, Associate Members and Permanent Observers to the OAS about the interference events which may occur to receive only FSS Earth Stations; and

d) That ITU-R Reports and Recommendations exist which can provide guidance on how to provide protection for FSS earth stations; for example, Recommendation ITU-R SF.1006\(^5\) and Report ITU-R M.2109\(^6\),

**RECOMMENDS:**

1. That Administrations in the Americas follow the notification procedures of the ITU-BR for FSS earth stations which are located, or planned to be located, within their territory and are operated in the fixed-satellite service (space-to-Earth) in bands that are shared with other services, and which could receive interference located within the territory of other Administrations.

2. That to accomplish recommends 1, the steps that may be followed are set forth in Annex 1 to this Recommendation.

3. That Administrations develop bi-lateral agreements with neighboring Administrations when implementing mobile or other terrestrial services and fixed-satellite services in neighboring countries.

4. That Administrations use the information referred to in Annex 2, which describes appropriate ITU regulations to be used to notify FSS Earth Stations near international borders.

5. That FSS satellite operators may use the form in Annex 3 for collecting and sharing information among themselves on interference events occurring to FSS receive Earth Stations as a basis for developing activities which result in the future protection of the stations.

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\(^5\) Recommendation ITU-R SF.1006 *Determination of the interference potential between earth stations of the fixed-satellite service and stations in the fixed service*

\(^6\) Report ITU-R M.2109 *Sharing studies between IMT Advanced systems and geostationary satellite networks in the fixed-satellite service in the 3 400-4 200 and 4 500-4 800 MHz frequency bands*
RESOLVES:

To revoke Recommendation PCC.II/REC. 23 (XI-08).

ANNEX 1 TO RECOMMENDATION PCC.II/REC. 27 (XIV-09)

NOTIFYING FSS EARTH STATIONS WITH THE ITU

1. Obtain the receive characteristics of FSS earth stations operating or planned to operate as part of an existing or planned satellite network;

2. Determine if these characteristics are already included in satellite network filings made to the ITU as typical earth stations;

3. Determine the locations of the existing or planned receive earth stations to be notified. Ensure that the FSS earth station locations which are or may be located close to the boundaries of other countries are taken into account;

4. Make electronic filings to the ITU-BR which are in accordance with the provisions of the radio regulations using the BR software. Assignments to specific earth stations may reach the BR not more than three years before the assignments are brought into use and may be recorded in the master register only after the associated space station is recorded. Appendix 4 identifies what information must be filed to obtain notification under Article 11;

5. Once an earth station is registered with the ITU, it will be taken into account in the coordination and notification processes.
ANNEX 2 TO RECOMMENDATION PCC.II/REC. 27 (XIV-09)

NOTIFICATION AND RECORDING OF FREQUENCY ASSIGNMENTS

The ITU-R recently held a Seminar at which it provided a briefing of how to effectively carry out the type of registration required. This briefing may be found at the following web location:


ANNEX 3 TO RECOMMENDATION PCC.II/REC. 27 (XIV-09)

FORM FOR REPORTING INTERFERENCE EVENTS

GENERAL INFORMATION

Q.1. Location of Earth Station (latitude and longitude coordinates)
   Answer: ___________________________________________

Q.1.a. Name of city and country where Earth Station is located
   Answer: ___________________________________________

Q.2. Dish size of Earth Station
   Answer: ___________________________________________

Q.2.a. Antenna Type (Manufacturer /Model No.)
   Answer: ___________________________________________

Q.3. Satellite the dish is pointed at
   Answer: ___________________________________________

Q.4. Date interference began
   Answer: _________________

Q.5. Exact frequency of the interference (MHz)
   Answer: ________________________

Q.6. Type of LNB used (Manufacturer /Model No.)
   Answer: _______________________________

Q.6.a. Does the LNB use standard or standard plus extended frequencies?
Q.7. Does the Earth station receive one carrier or multiple carriers?
Answer: ______________________________

Q.7.a. If multiple carriers, then is it only one carrier that is affected or more than one?
Answer: ______________________________

Q.8. Earth station license information, if available
Answer: ______________________________

MEASUREMENTS

Q.9. Direction of interference path (bearing from due North)
Answer: ______________________________

Q.10. Spectral plot of interference signal
Answer: ________________________________

Q.11. Approx power measured at the output of LNA/LNB
Answer: ______________________________

INFORMATION ABOUT THE SOURCE OF THE INTERFERENCE

Q.12. Characteristics of interfering signal (modulation type – continuous or intermittent)
Answer: ______________________________________________

Q.13. Location of any new visible radio towers or installations around the earth station location
Answer: ______________________________________________

Q.13.a. Line-of-sight distance from Earth Station to radio towers/installations
Answer: ______________________________________________

Additional Information

Q.14. Please provide additional comments and/or observations, if any
Answer: ________________________________________________________________

______________________________________________________________

______________________________________________________________

Prepared by:
Name: _________________________________
Title: _________________________________
Company: ______________________________
Tel. No.: ______________________________
Fax. No.: _____________________________
E-mail: ______________________________
Address: _____________________________
V. DECISIONS

The XIV Meeting of the Permanent Consultative Committee II: Radiocommunications including Broadcasting,

DECIDES:

PCC.II/DEC. 87 (XIV-09) 7

1. To hold, in 2010, an online tutorial in Spanish and an online tutorial in English on "Harmful Interference from Satellite System Emissions," considering the positive impact generated by the course on this subject held in 2009, the fact that not all those interested in these subjects were able to attend the course, and that Members of PCC.II have expressed interest in this subject.

2. To include in the curriculum at least the following topics:
   Support is requested for the selection of topics of greatest impact from among the following:

   **Module I: Introduction to satellite communications**
   - Concept
   - Subsystems
   - Launch
   - Orbits
   - Applications

   **Module II: Monitoring of carriers**
   - Monitoring tools
   - Digital signal processor (DSP)
   - Databases

   **Module III: Recommendations on earth station installation and maintenance**
   - Radio environment
   - Antenna leveling
   - Pointing and isolation
   - Receiving stations
   - Transmitting stations
   - Signal balancing
   - Maintenance

   **Module IV: Access procedure**
   - Pointing antenna toward reception
   - Coordination of access with the satellite operator
   - Spurious emission verification

   **Module V: Radiofrequency interference**
   - Accidental interference

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7 CCP.II-RADIO/doc. 2135/09
• Deliberate interference
• Actions by CITEL
• Geolocation of interference

3. To request the Executive Secretary of CITEL to provide support to achieve the widest possible dissemination and participation in this tutorial.

To instruct the Executive Secretary:

1. To send the CITEL Member States the document CCP.II-RADIO/doc.2098/09, which provides a description of the status of certain Recommendations related to the Radionavigation Satellite Service (RNSS) presently under consideration in the ITU-R.

2. To invite the Member States of CITEL to send letters of support to ITU-R Study Group 4 (example included in the above mentioned document) endorsing the referenced Draft New Recommendations.

To request members of CITEL to develop and submit input contributions to the next meeting of PCC.II dealing with the World Radiocommunication Conference of 2012 (WRC-12) structure and potential working group chairmen in order for PCC.II to develop a contribution to the WRC-12 Informal Group. Initial drafts of the WRC-12 structure as prepared by the WRC Informal Group Chairman and the CEPT Conference Preparatory Group (CPG) draft WRC-12 structure are attached in document CCP.II-RADIO/doc. 2142/09 rev.1 to assist members in developing contributions.

1. To hold a Workshop on Management and Application of Appendix 30B of the Radio Regulations of the International Telecommunication Union (ITU) during the next CITEL PCC.II meeting.

2. To hold the Workshop pursuant to Resolution PCC.II/RES. 58 (XIII-09), entitled “WORKSHOP ON MANAGEMENT AND APPLICATION OF APPENDIX 30B OF THE ITU RADIO REGULATIONS”.

3. To appoint Mr. Jesus Rivera as the coordinator of the Workshop.

4. To invite experts from the ITU to conduct the Workshop, which include detailed exercises using computers.

5. To allocate three or more sessions of the Working Group-Satellite Systems to Provide Fixed and Mobile Services for the Workshop, noting in particular that the Workshop would be held at no

8 CCP.II-RADIO/doc. 2139/09 rev.1
9 CCP.II-RADIO/doc. 2142/09 rev.1
10 CCP.II-RADIO/doc. 2140/09
extra cost to CITEL.

6. To set a maximum number of participants for the Workshop.

7. To request CITEL Executive Secretary:
   - to invite Member States to nominate qualified participants for the Workshop in accordance with the qualifications agreed upon between the coordinator of the Workshop and the Office of Radiocommunications (BR);
   - to coordinate with the BR to set up an online tutorial for prospective participants one month prior to the Workshop to prepare them for the face-to-face Workshop.

ANNEX 1 TO DECISION PCC.II/DEC. 90 (XIV-09)

Proposed topics for the Workshop:

- General Framework of the Allotment Plan of the AP30B and justification of its use in the framework of the important principles of efficient use of, and equitable access to, orbital and spectrum resources.
- World situation of requests for use by ITU member countries of the planned bands of AP30B.
- Current world situation of the countries that have commercial networks operating with the use of planned bands of AP30B.
- Revision and explanation of the substantial changes made at the World Radiocommunication Conference (WRC-07) to Appendix 30B of the ITU Radio Regulations and its Annexes (new technical parameters, criteria for sharing and associated calculation methods).
- Advantages and drawbacks of such changes to AP30B for ITU member Administrations.
- Explanation of those procedures adopted at the WRC-07 making it possible to facilitate the processing of the examination of the notifications by the Radiocommunication Bureau in Appendix 30B of the ITU Radio Regulations.
- Vision of the ITU and recommendations to CITEL member countries on the feasibility of using and implementing the bands of Appendix 30B.
- Current situation and possible plans of use of Appendix 30B of the ITU Radio Regulations by CITEL Member Administrations.
- Procedures for attributing orbital/spectrum resources under Appendix 30B.
- Comparisons between the procedure of Articles 9 and 11 of the RR and Appendix 30B.
- Installation and management of software tools available in the BR for managing Appendix 30B.
- Practical exercises using the above-mentioned software.
- Establishment of the training programs that would make it possible for CITEL Member Administrations to learn about, study and apply...
Appendix 30B of the ITU Radio Regulations.

- Proposals by the ITU Radiocommunication Bureau (mechanisms and training programs) that can jointly be worked on with CITEL Member Administrations making it possible to learn about, study and apply Appendix 30B of the ITU Radio Regulations, as well as highlight its importance as an instrument that guarantees equitable access of all ITU Member States to orbital/spectrum resources associated with the frequency bands governed by the Appendix.

PCC.II/DEC. 91 (XIV-09)  
To request the Secretary General of CITEL to send to the Administrations and Associate Members of CITEL for their information document CCP.II-RADIO/doc. 2078/09 on best practices codes for the rollout of mobile networks.

PCC.II/DEC. 92 (XIV-09)  
To request the Secretary General of CITEL:

1. To send to the Administrations and Associate Members of CITEL the information reproduced in document CCP.II-RADIO/doc. 2119/09 on a broadband monitoring system for electromagnetic emissions,

2. To send also this document to ITU-T Study Group 5 and IEC TC 106.

11 CCP.II-RADIO/doc. 2150/09  
12 CCP.II-RADIO/doc. 2151/09
VI. LIST OF BASIC DOCUMENTS

Summary Minutes of the Inaugural Session and the First Plenary Session:  CCP.II-RADIO/doc. 2134/09 rev.1 cor.1
Summary Minutes of the Second Plenary Session:  CCP.II-RADIO/doc.2148/09
Summary Minutes of the Third Plenary Session and Closing Session:  CCP.II-RADIO/doc. 2156/09
List of Documents:  CCP.II-RADIO/doc. 2034/09 rev.5
List of Participants:  CCP.II-RADIO/doc. 2035/09 rev.3
Final Report for the Meeting  CCP.II-RADIO/doc. 2159/09 rev.1