VI MEETING OF PERMANENT
CONSULTATIVE COMMITTEE II:
RADIOCOMMUNICATIONS
INCLUDING BROADCASTING
October 24 to 28, 2005
San José, Costa Rica

FINAL REPORT
(Item on the Agenda: 8)
(Document submitted by the Chair of the Group)
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FINAL REPORT

VI MEETING OF THE PERMANENT CONSULTATIVE COMMITTEE II:
RADIOCOMMUNICATIONS INCLUDING BROADCASTING

The VI Meeting of the Permanent Consultative Committee II: Radiocommunications including Broadcasting was held in San José, Costa Rica, October 25 to 28, 2005.

I. AGENDA

1. Approval of the Agenda and Calendar.
3. Working methods of PCC.II.
4. Meeting and Report of Working Groups on:
   4.1 Preparation for Regional and World Radiocommunication Conferences.
   4.2 Terrestrial Fixed and Mobile Radiocommunication Services.
   4.3 Satellite systems to provide fixed and mobile services.
   4.4 Broadcasting.
   4.5 Technical and Regulatory Aspects Related to the Effects of Electromagnetic Non-Ionizing Emissions
5. Report of the tasks performed in coordination with ITU.
6. Agenda, Venue and Date of the VII Meeting of PCC.II.
7. Other matters.

II. AUTHORITIES OF THE MEETING

Chair: Mr. Mikhail Marsiglia (Venezuela)
Vice-Chair: Mr. Héctor Carril (Argentina)
Vice-Chair: Mr. Mario Fromow Rangel (México)
Executive Secretary: Mr. Clovis Baptista Neto (CITEL)
Drafting Group:
Chairperson: Mr. Max Vargas (Costa Rica)
Members:
Mr. William Davies (Canada)
Mr. Luis Arguedas (Costa Rica)
Mr. Ralph Puckett (United States)
Mr. Jonathan Siverling (United States)
Mr. Rubén Arenas (Venezuela)
Mr. Pedro González (Venezuela)

1 PCC.II-RADIO/doc.767 rev.2 /05
III. RESOLUTIONS

PCC.II/RES.25 (VI-05) ²

PROPOSED TIMELINE FOR CITEL WRC-07 PREPARATION

The VI 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 (WG-WRC),

CONSIDERING:

a) That early submission of inter-american proposals (IAPs) to the World Radiocommunication Conference of 2003 (WRC-03) 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 ITU should be a priority for CITEL, and

g) That there may be a need to submit new draft IAPs as a result of the ITU Conference Preparatory Meeting (CPM) meeting,

RESOLVES:

1. To establish a timeline for CITEL’s participation in WRC-07 in accordance with Annex to this Resolution;

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 to meet exclusive of a PCC.II meeting;

² CCP.II-RADIO/doc.907/05 rev.2
4. to ensure that, whenever possible, there is no conflict with conference preparatory meetings of other regional organizations;

ANNEX TO RESOLUTION PCC.II/RES.25 (VI-05)

Proposed Timeline for CITEL WRC-07 Preparation
(All Months Dependent of Host Country Arrangements)

2006
(VII Meeting of PCC.II) April
(VIII Meeting of PCC.II) October

2007
(IX Meeting of PCC.II) February (Limit Meeting – Last Input for Proposals)
(X Meeting of PCC.II) May/June (Post CPM Proposals may be submitted)
(WG-WRC) October (Organizational Meeting – Selection of Agenda Item Spokespersons)
PCC.II/RES. 26 (VI-05) 3

SUBMITTING INTER-AMERICAN PROPOSALS TO WORLD RADIOCOMMUNICATION CONFERENCES

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

CONSIDERING:

That it has been deemed advisable to change the current procedure for submitting joint documents to the ITU-R,

RESOLVES:

1. That PCC.II adopt the procedure attached in the Annex for submitting Inter-American proposals to World Radiocommunication Conferences.

2. That this Resolution replaces Resolution PCC.II/RES. 119 (XVIII-01).

ANNEX 1 TO RESOLUTION PCC.II/RES. 26 (VI-05)

PROCEDURE FOR THE PREPARATION AND ADOPTION OF INTER-AMERICAN PROPOSALS TO BE SUBMITTED TO A WORLD RADIOCOMMUNICATION CONFERENCE

1. OBJECTIVE

To establish the procedure to be followed for any proposal developed in the PCC.II to be submitted to a World Radiocommunication Conference (WRC) as an INTER-AMERICAN PROPOSAL.

In using this procedure, every effort should be made to reach consensus among CITEL Administrations.

2. DEFINITIONS

For the purposes of this procedure, the terms set forth are defined as follows:

a. WG-WRC: PCC.II Working Group responsible for the preparation of CITEL’s documents for World Radiocommunication Conferences.

b. PROPOSAL: input presented to PCC.II to be discussed in the WG-WRC with a view to it becoming an INTER-AMERICAN PROPOSAL.

3 CCP.II-RADIO/doc.913/05 rev.1
c. DRAFT INTER-AMERICAN PROPOSAL (DRAFT IAP): PROPOSAL which is being considered by PCC.II after the WG-WRC has ended its consideration and discussion, and that has been supported by more than one Administration.

d. INTER-AMERICAN PROPOSAL (IAP): DRAFT INTER-AMERICAN PROPOSAL, for which the PCC.II has ended its consideration and discussion, and that has been supported by no fewer than six (6) Administrations and is not opposed by more than 50% (fifty percent) of the number of supports obtained.

e. LIMIT MEETING: penultimate meeting of the PCC.II before the WRC. This meeting is to be held at least 21 (twenty one) weeks before the beginning of the WRC, in order to meet the WRC’s document submission deadline.

f. FINAL MEETING: last meeting of the PCC.II before the WRC. This meeting is to be held after the LIMIT MEETING and before the beginning of the WRC.
A. INTER-AMERICAN PROPOSALS

A1. STEPS

The steps in the procedure for the preparation and adoption of INTER-AMERICAN PROPOSALS to be submitted to the WRC are as follows:

Step 1. Presentation, discussion and development of a PROPOSAL in the WG-WRC

PROPOSALS presented in the PCC.II will be discussed in the WG-WRC with a view to consolidating all PROPOSALS that relate to the same subject and eventually to develop the texts before the last WG-WRC plenary of the LIMIT MEETING.

Step 2. Evaluation of the support and opposition to PROPOSALS in the WG-WRC

Before the FINAL MEETING, the WG-WRC, in a plenary session, will evaluate the support and opposition obtained by the PROPOSALS after the Chair of the WG-WRC determines that the discussions and the preparation of their texts have been completed.

If a PROPOSAL meets the corresponding support and opposition criteria, then it becomes a DRAFT IAP. The PROPOSALS that do not become DRAFT IAPs remain PROPOSALS.

New PROPOSALS or DRAFT IAPs that have not been previously circulated will not be considered or developed during the FINAL MEETING unless the proposal is submitted as a result of the Conference Preparatory Meeting (CPM) text, when the CPM occurs between the Limit and Final Meetings.

Step 3. Circulation of DRAFT INTER-AMERICAN PROPOSALS during one or more rounds of consultation

The Secretariat of CITEL will distribute the DRAFT IAPs to all Member States of CITEL, for consideration no more than two (2) weeks after the close of the corresponding meetings of the PCC.II, in which these DRAFT IAPs have been considered.

Step 4. Evaluation of the support and opposition of the DRAFT INTER-AMERICAN PROPOSALS

Those DRAFT IAPs that have been previously circulated will be considered at the LIMIT MEETING.

4 For the purpose of this procedure "new PROPOSALS" are interpreted to mean PROPOSALS never before discussed. Therefore, modifications of DRAFT IAPs based on negotiations does not constitute new PROPOSALS.
During the LIMIT MEETING the support and opposition to each of the DRAFT IAPs will be evaluated.

Consequently during the LIMIT MEETING, the PCC.II, in a plenary session will elaborate a Resolution to settle the following:

a. the list of IAP;

b. the list of DRAFT IAPs that, despite the efforts done, have not yet become IAPs;

c. the date IAPs are to be sent to the ITU.

The DRAFT IAPs that do not become IAPs remain DRAFT IAPs.

Step 5. Circulation of the INTER-AMERICAN PROPOSALS

No more than two (2) weeks after the close of the LIMIT MEETING the Secretariat will distribute the IAPs to all Member States of CITEL, and, exclusively for information purposes, the DRAFT IAPs still in consideration.

Administrations wishing to add their support to IAPs before the following PCC.II meeting, may do it by sending written notice (letter, fax or e-mail) to the Secretariat of CITEL.

Step 6. Sending INTER-AMERICAN PROPOSALS to the ITU

The Secretariat of CITEL will send the IAPs to the ITU in the time frame set by the PCC.II, following ITU rules and procedures.

Exceptionally, if, at the FINAL MEETING specific DRAFT IAPs meet the support/opposition criteria making them IAPs, they will be considered at a PCC.II plenary session, in order to elaborate a Resolution to settle the list of such late IAPs with the instruction to be sent to the ITU by the Secretariat of CITEL.

A2. SUPPORT

Administrations wishing to support a PROPOSAL being considered in the WG-WRC must do so during a session of the WG-WRC either orally or in writing.

Administrations wishing to support a DRAFT IAP being considered in the PCC.II must do so during a PCC.II plenary session either orally or in writing.

Administrations wishing to support an IAP not yet sent to ITU may do so:

a. during a PCC.II plenary session, including the FINAL MEETING, either orally or in writing.

b. between PCC.II meetings by sending written notice (letter, fax or e-mail) to the Secretariat of CITEL.
If necessary Administrations wishing to add their support to a specific IAP already sent to the ITU may do so:

a. up to two (2) weeks before the start of the WRC, by sending written notice (letter, fax or e-mail) to the Secretariat of CITEL.

The Secretariat will give the ITU the names to be added in the form of a “corrigendum” to the document of the IAP; or

b. directly through their delegation participating in the WRC.

A3. OPPOSITION

It is understood that Administrations which oppose a PROPOSAL or DRAFT IAP shall indicate clearly the reasons of their oppositions.

Administration wishing to oppose a PROPOSAL being considered within the WG-WRC must do so during a session of the WG-WRC, orally or in writing.

Administrations wishing to oppose a DRAFT IAP which has been circulated before the LIMIT MEETING must do so during a plenary session of PCC.II, orally or in writing.

Administrations wishing to oppose a DRAFT IAP developed during the LIMIT MEETING must do so during the plenary session of the FINAL MEETING, orally or in writing.

A4. GENERAL PROVISIONS

A4.1. Obtaining support

The Administration(s) that originally submitted a PROPOSAL shall undertake the task of coordinating and encouraging its support, in order that it becomes a DRAFT IAP and an IAP afterwards.

A4.2. Format for DRAFT INTER-AMERICAN PROPOSALS

The heading of each DRAFT IAP being considered in the PCC.II must include the following elements in the order indicated below:

a. the names of the CITEL Administrations that expressed their support;

b. in square brackets, the names of CITEL Administrations that have not yet made their position known;

c. the names of the CITEL Administrations that have expressed their opposition.
A4.3. Electronic Forum

A specific area of the CITEL’s Electronic Forum will include:

a. all the DRAFT IAP being considered, identifying the supports and oppositions received;

b. all the IAP, identifying the supports and oppositions received;

c. date of the LIMIT MEETING; and

d. date of the FINAL MEETING.

A4.4. Contact points

Communications with the Administrations should be channeled through the contact points identified to the PCC.II in accordance with Article 24 of the Statute and Article 81 of the Regulations of CITEL.

A4.5. Superposition of competence

If the topic being considered involves areas of competence of other CITEL bodies, their opinions thereof must be obtained before the process is completed.

A4.6. Attitudes of Administrations during the WRC

If after the deadline for their consideration efforts to reconcile differences have been unsuccessful, PROPOSALS and DRAFT IAPs that did not become INTER-AMERICAN PROPOSALS may be submitted by the interested Administrations to the WRC without any reference whatsoever to CITEL.

It is understood that if an Administration chooses to oppose a specific INTER-AMERICAN PROPOSAL at the WRC, that Administration will make every effort to inform the Chair of PCC.II of their intention before expressing formally such opposition in any WRC session.

A4.7. National activities

Administrations are encouraged to schedule their national preparatory activity in such a way as to be prepared to state support for or opposition to DRAFT IAPs as early as possible, or by the conclusion of the LIMIT MEETING.

B. REVISING INTER-AMERICAN PROPOSALS AFTER THE BEGINNING OF A WRC

After the beginning of a WRC, it may become necessary to revise an IAP. Propositions of revisions should only be presented and considered during a PCC.II plenary session convened in accordance with regulations and held at the WRC.
A decision to submit a revision will be based on the agreement of CITEL Administrations present at the WRC.

In the case of a revised IAP, only the names of the Administrations present at the WRC and supporting the revised IAP will be listed on the heading. Administrations not in attendance will be informed by the CITEL Secretariat of the revised IAP once it is approved.

C. NEW INTER-AMERICAN PROPOSALS AFTER THE BEGINNING OF A WRC

PROPOSALS for new IAPs will not be considered during a WRC.

D. APPLICATION OF THIS PROCEDURE

The provisions of this procedure must be applied and interpreted in accordance with resolution COM/CITEL RES. 117 (IX- 00).

Also, any topic that is not covered in this procedure must be resolved in a plenary session of PCC.II after consultation with the Chair of WG-WRC.
ANNEX 2 TO RESOLUTION PCC.II/RES. 26 (VI-05)
IAP Development and Adoption Process

Legend:
NPs = New Proposals
L-NPs = Late New Proposals
EPs = Existing Proposals
L-EPs = Late Existing Proposals
M-EPs = Modified Existing Proposals
DIAPs = Draft Inter-American Proposals
M-DIAPs = Modified Draft Inter-American Proposals
L-DIAPs = Late Draft Inter-American Proposals
ML-DIAPs = Modified Late Inter-American Proposals
IAPs = Inter-American Proposals
L-IAPs = Late Inter-American Proposals
C = Circulation of DIAPs
R = Circulation of DIAPs and/or IAPs if any
--------- = ITU WRC Document Submission Deadline
ADOPTION OF DIGITAL TERRESTRIAL TELEVISION (DTT) IMPLEMENTATION GUIDE

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

CONSIDERING:

a) That television is recognized as a fundamental part of the region’s communication and information infrastructure;

b) That digital television broadcasting is one of the most widely used means of mass communication to transmit cultural, educational and entertainment contents without cost, in addition to news and information of various types;

c) That Resolutions PCC.II/RES. 11 (II-03), PCC.II/RES. 18 (IV-04) and PCC.II/RES. 23 (V-05) established directives for preparing Recommendations that would contribute to the planning and implementation of Digital Terrestrial Television in the CITEL countries, and

d) That the contributions submitted by the Administrations regarding advances in the implementation of Digital Terrestrial Television, enabled the Committee to approve preliminary versions of the Digital Terrestrial Television (DTT) Implementation Guide in meetings III, IV and V of PCC.II,

RESOLVES:

1. To adopt the Digital Terrestrial Television (DTT) Implementation Guide that forms part of this Resolution and that was approved as document PCC.II/doc.811/05 rev.2.

2. To request on the Administrations to continue sharing their experiences, tests, policies and standards in order to update the information included in the guide.

3. To promote the use of the discussion group in the electronic forum of CITEL to compile and evaluate the relevant contributions.

\[^{5}\text{PCC.II-RADIO/doc. 903/05}\]
PCC.II/RES. 28 (VI-05) 6

ISSUES CONCERNING IMPLEMENTATION OF DIGITAL MF BROADCASTING IN REGION 2

The VI Meeting of the Permanent Consultative Committee II: Radiocommunication including Broadcasting,

CONSIDERING:

a) That several Administrations in Region 2 have begun testing or implementing digital sound broadcasting systems for Amplitude Modulation (AM) and Frequency Modulation (FM) broadcasting;

b) That in Region 2, the use of the Medium Frequency (MF) bands for the broadcasting service is governed by the Regional Agreement for use of the band 535 to 1605 kHz Rio de Janeiro, 1981 (“RJ81”) and the Regional Agreement for use of the band 1605 to 1705 kHz Rio de Janeiro, 1988 (“RJ88”);

c) That the regulatory provisions of the “RJ81” Agreement do not permit the introduction of digital modulation in the band governed by this because existing digital systems for this band cannot conform to the requirements: (i) that the classes of emission be receivable by receivers employing envelope detectors, and (ii) that the systems have an occupied bandwidth of no more than 20 kHz;

d) That careful planning and technical studies are required to ensure there is no harmful interference from digital emissions into existing or planned AM radio broadcast systems,

RECOGNIZING:

a) That the MF band is extensively used by Administrations for the provision of broadcasting services;

b) That Administrations have an interest in protecting existing analog services along with the introduction of digital modulation,

RESOLVES:

1. To establish a PCC.II subworking group of the Working Group on Broadcasting which, in coordination with the Working Group for the Preparation of CITEL for Regional and World Radiocommunication Conferences, prepare and develop a work plan for the eventual transition of MF radio broadcasting to an all-digital format.

2. To invite Administrations to participate in the technical studies of the International Telecommunication Union (ITU) to develop the necessary technical planning criteria for the introduction of digitally modulated emissions in Region 2.

3. To request the ITU the convene a Regional Radiocommunication Conference of Region 2 countries to update the necessary administrative and technical parts of the “RJ81” Agreement to allow the introduction in the Plan of digitally modulated emissions.

6 PCC.II-RADIO/doc. 891/05 rev.2 cor.1
4. To develop a draft Agreement to be presented to such Regional Conference for its adoption and eventual replacement of the existing Agreement that, including its associated Annexes governing MF broadcasting in Region 2.

**CCP.II/RES. 29 (VI-05)**

**TECHNICAL AND REGULATORY ASPECTS RELATED TO THE EFFECTS OF ELECTROMAGNETIC NON-IONIZING EMISSIONS**

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

CONSIDERING:

a) That given the continual evolution of the technologies used in wireless communications, the need to install antennas and their associated elements has increased, especially in densely populated areas; and that the population in general has expressed concern about the possible effects of non-ionizing emissions, particularly, with the proliferation of these antennas;

b) That it is the duty of the telecommunication and broadcasting authorities to establish the technical regulations for use of the radio-frequency spectrum;

c) That it is important for the population as a whole to be properly informed about existing regulations with respect to non-ionizing radio-frequency emissions;

d) That the Administrations of the Americas have an interest in and need for the scientific information available in order to develop their own regulations;

e) That the compilation of scientific information will help in providing CITEL members with more background for their analysis and subsequent decision making, and

ACKNOWLEDGING:

a) That some member countries have not yet moved forward on regulations regarding the use of electromagnetic non-ionizing emissions and some are in the phase of developing their regulations;

b) That in some countries of the region the need has been perceived to expand dissemination about aspects relating to non-ionizing radio-frequency emissions,

TAKING INTO ACCOUNT:

a) That the PCC.II has compiled available regulatory information from all the countries of America as well as from important scientific associations that have studied the subject, and which has been edited on the CD distributed at the VI Meeting of PCC.II;

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7 PCC.II-RADIO/doc. 843/05 rev.3
b) That the PCC.II through the CITEL Secretariat and Rapporteur Group on the Technical and Regulatory Aspects Related to the Effects of Electromagnetic Non-Ionizing Emission has established contact with the main official and private institutions involved with the subject,

RESOLVES:

1. To hold a Workshop on Technical and Regulatory Aspects related to the Effects of Electromagnetic Non-Ionizing Emissions in order to share information, the day before the seventh meeting of PCC.II, with resources from outside CITEL. Should funds not be found for holding the seminar, the Chair of PCC.II, in consultation with the working groups, and according to the agenda for the meeting, would study the possibility of holding the event with PCC.II funds, as long as it would not involve costs in addition to normal expenditures.

2. Establish that the Workshop will be coordinated by the authorities of the Rapporteur Group with contributions to the development of the Agenda from the Administrations of: Argentina, Brazil, Canada, Costa Rica, Guatemala, Mexico, the United States, and Venezuela.

INSTRUCTS THE EXECUTIVE SECRETARY:

To send this resolution to the CITEL Member States and Associate Members, urging them to participate in the Workshop.

PCC.II/RES. 30 (VI-05) 8

AGENDA, VENUE AND DATE FOR THE VII MEETING

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

RESOLVES,

1. To hold the VII Meeting of PCC.II from 18 to 21 April 2006 in Lima, Peru.

2. To approve the draft agenda for the VII Meeting which is attached as an Annex.

ANNEX TO RESOLUTION PCC.II/RES.30 (VI-05)

DRAFT GENERAL AGENDA

1. Approval of the Agenda and Calendar.
3. Working methods of PCC.II.
4. Meeting and Report of Working Groups on:
   4.1 Preparation for Regional and World Radiocommunication Conferences,
   4.2 Terrestrial Fixed and Mobile Radiocommunication Services.

8 PCC.II-RADIO/doc. 906/05 rev.1
4.3 Satellite systems to provide fixed and mobile services.

4.4 Broadcasting.

5. Report of the tasks performed in coordination with ITU.

6. Agenda, Venue and Date of the VIII Meeting of PCC.II.

7. Other matters.


DRAFT AGENDAS OF WORKING GROUPS

4.1 Draft Agenda of the Working Party for the preparation of CITEL for Regional and World Radiocommunication Conferences

1. Presentation and approval of the agenda.
2. Working methods.
3. Assignment of documents to the sub-groups:
   SGT 1  1.2, 1.3, 1.5, 1.6, 1.13, 1.14, 1.15, 1.16, 1.20
   SGT 2  1.7, 1.8, 1.10, 1.11, 1.17, 1.18, 1.19, 1.21
   SGT 3  1.1, 1.12, 2, 3, 4, 5, 6, 7.1
   SGT 4  1.4, 1.9
   SGT – AD-HOC  7.2
4. Reports of the spokespersons to other organization’s meetings.
5. Other matters.

4.2 Draft Agenda of the Working Party on Terrestrial Fixed and Mobile Radiocommunication Services

1. Opening remarks.
2. Approval of the agenda.
3. Information documents.
4. Radio frequency identification devices (RFID).
5. Broadband Power Line Communications (BPL).
6. BWA
7. Refarming of 700 MHz band.
8. PPDR in 4.9 GHz
10. Other business.

4.3 Draft Agenda of the Working Group relative to Satellite systems to provide fixed and mobile services

1. Approval of the agenda.
2. General guidelines for licensing global mobile personal communications system networks (GMPCS).
3. Considerations on the authorization of broadband communication services by networks of the aeronautical mobile-satellite service (AMSS).
4. Procedures to be followed for authorization of earth stations on board vessels (ESV).
5. Implementation of regulations providing for the deployment of satellite services.
6. Harmful interferences by non authorized transmissions in satellite networks.
7. Other business.

4.4 Draft Agenda of the Working Party on Broadcasting

1. Opening remarks.
2. Approval of the agenda.
3. Reports of the Rapporteurs.
   b. Digital Television.
   c. Digital Sound Broadcasting.
4. Establish and schedule the duties of the sub-groups.
5. Future work.
6. Other business.
IV. RECOMMENDATIONS

PCC.II/REC. 11(VI-05)  

TECHNICAL AND OPERATIONAL LIMITS FOR DEPLOYMENT OF WIRELESS ACCESS SYSTEMS INCLUDING RLANS IN THE 5 GHz RANGE

The VI meeting of the Permanent Consultative Committee II: Radiocommunications including Broadcasting,

CONSIDERING:

a) That there is a need to provide harmonized spectrum to the mobile services for wireless access systems including Radio Local Area Network (RLANs) operating in the bands 5150-5250 MHz, 5250-5350 MHz and 5470-5725 MHz;

b) That CITEL Administrations presented a common proposal on World Radiocommunication Conference WRC-2003 agenda items 1.5 and 1.6;

c) That WRC-03 adopted changes to the table of allocation and also regulatory, technical and operational constraints (see Resolution 229 (WRC-03)) to facilitate use of 5 GHz wireless access services globally;

d) That CITEL countries would benefit if common procedures could be developed for the use of the 5 GHz bands by RLANs;

e) That there is a need to protect the existing primary services in the 5150-5350 MHz and 5470-5725 MHz bands;

f) That the results of studies in the ITU-R indicate that sharing in the band 5150-5250 MHz between WAS, including RLANs, and the FSS is possible under specified conditions;

g) That Resolution 229 (WRC-03) assumes outdoor WAS use in the 5250-5350 MHz band but to ensure protection to the earth exploration-satellite service (EESS) requests Administrations to take measures that result in predominantly indoor use in this band;

h) That Resolution 229 (WRC-03) resolves 4 and 5 also provides some flexibility to Administrations in what mitigation techniques are used to protect EESS;

i) That ITU studies identify RLAN load spreading over a large number of frequencies and using transmit power control (TPC) as factors that will lessen potential interference to EESS (see ITU-R SA.1632);

j) That some RLAN devices capable of operating in the 5250-5350 MHz band may operate throughout segments of the band 5150-5725 MHz, yielding 455 MHz of usable spectrum, and some RLAN devices capable of operating in the 5250-5350 MHz band may operate throughout segments of the band 5250-5850 MHz, yielding 480 MHz of usable spectrum; in both cases spreading deployment densities over a large amount of spectrum;

9 PCC.II-RADIO/doc. 871/05 cor.1
k) That studies have shown that sharing between the radiodetermination and mobile services in the bands 5250-5350 MHz and 5470-5725 MHz is possible with the application of mitigation techniques such as dynamic frequency selection;

l) That the deployment density of WAS, including RLANs, will depend on a number of factors including intrasystem interference and the availability of other competing technologies and services which can have significant effect on protection of EESS.

NOTING:

a) That international spectrum allocations along with attendant regulatory, operational and technical frameworks for the use of 5 GHz spectrum were adopted by WRC-03;

b) That a number of Administrations have put into place, or are considering, regulations to certify equipment for use within the 5150-5725 MHz range;

c) That 5 GHz wireless systems may be used to provide effective, low-cost solution to providing broadband access and also for bridging the digital divide;

d) That bringing 5 GHz wireless broadband services to consumers would be accelerated if Administrations develop common spectrum use, regulatory and testing procedures;

e) That some Administrations also permit the use of similar, but higher powered, equipment in the 5725-5825 MHz band for fixed and mobile services;

f) That such use of the 5725-5825 MHz band could provide for longer distance links to provide – among other uses – backhaul to support “last-mile” broadband access operations at lower 5 GHz frequencies and, thus, may be considered for such use throughout the Region;

g) That the availability of the 5725-5825 MHz band could also relieve pressure to use 5 GHz bands lower in frequency for higher powered systems,

RECOGNIZING:

a) That a mitigation technique to protect radiodetermination systems is given in Recommendation ITU-R M.1652;

b) That there is a need for Administrations to ensure that WAS, including RLANs meet the required mitigation techniques, for example through equipment or standards compliance procedures;

c) That the vast majority of wireless access systems including RLANs will be authorized on a license exempt basis,

RECOMMENDS:

1. That CITEL Administrations adopt operational and technical limits for wireless access systems including RLANs operating in 5 GHz bands in accordance with the ITU Radio Regulations;
2. That CITEL Administrations ensure that technical or operational limits on wireless access systems including RLANs are:

i) harmonized with other CITEL countries to the extent possible;

ii) do not introduce limits in excess of those found in the ITU Radio Regulations;

iii) provide protection to existing services to the equivalent level specified in the ITU Radio Regulations in bands where flexibility is afforded to Administrations.

3. That in the band 5150-5250 MHz, stations shall be restricted to indoor use. Stations that operate with a bandwidth equal to or greater than 1 MHz shall not exceed a maximum e.i.r.p. of 200 mW and a maximum e.i.r.p. density of 10 mW/MHz in any 1 MHz band. Stations that operate with a bandwidth of less than 1 MHz (where permitted) shall not exceed a maximum e.i.r.p. of 10 log (B) mW, where B is the bandwidth in MHz, as measured with a bandwidth equal to the emission bandwidth. It is permissible to use a measurement bandwidth less than the specified bandwidth provided the measured power is integrated to show total power over the specified bandwidth.

4. That CITEL Administrations in which WAS/RLAN devices are used in the 5150-5250 MHz band adopt measures to ensure that such devices are restricted to indoor use.

5. That in the band 5250-5350 MHz, stations in the mobile service shall be limited to a maximum mean e.i.r.p. of 200 mW and a maximum mean e.i.r.p. density of 10 mW/MHz in any 1 MHz band. Administrations are requested to take appropriate measures that will result in the predominant number of stations in the mobile service being operated in an indoor environment. Furthermore, stations in the mobile service that are permitted to be used either indoors or outdoors may operate up to a maximum mean e.i.r.p. of 1 W and a maximum mean e.i.r.p. density of 50 mW/MHz in any 1 MHz band, and, when operating above a mean e.i.r.p. of 200 mW, these stations shall comply with the following e.i.r.p. elevation angle mask where θ is the angle above the local horizontal plane (of the Earth):

\[-13 \text{ dB(W/MHz)} \text{ for } 0^\circ \leq \theta < 8^\circ\]
\[-13 - 0.716(\theta-8) \text{ dB(W/MHz)} \text{ for } 8^\circ \leq \theta < 40^\circ\]
\[-35.9 - 1.22(\theta-40) \text{ dB(W/MHz)} \text{ for } 40^\circ \leq \theta \leq 45^\circ\]
\[-42 \text{ dB(W/MHz)} \text{ for } 45^\circ < \theta;\]

6. That the Administrations may exercise some flexibility in adopting other mitigation techniques, provided that they develop national regulations to meet their obligations to achieve an equivalent level of protection to the EESS (active) and the SRS(active) based on their system characteristics and interference criteria as stated in Recommendation ITU-R SA.1632.

Some CITEL Administrations have adopted the following rules utilizing the flexibility afforded by this Recommends:

That in the bands 5250-5350 MHz stations shall be restricted to a peak transmit power not to exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1 MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi;
7. That in the band 5470-5725 MHz, stations in the mobile service shall be restricted to a maximum transmitter power 250 mW with a maximum mean e.i.r.p. of 1 W and a maximum mean e.i.r.p. density of 50 mW/MHz in any 1 MHz band;

8. That in the band 5250-5350 MHz and 5470-5725 MHz, stations shall either employ transmitter power control to provide, on average, a mitigation factor of at least 3 dB of the maximum average output power of the systems or, if transmitter power control is not used, the maximum mean e.i.r.p. shall be reduced by 3 dB;

9. That in the bands 5250-5350 MHz and 5470-5725 MHz, the mitigation measures found in Annex 1 to Recommendation ITU-R M.1652 shall be implemented by systems in the mobile service to ensure compatible operation with radiodetermination systems;

10. That in the band 5725-5825 MHz, stations be restricted to a peak transmit power not to exceed the lesser of 1 W or 17 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 17 dBm in any 1 MHz band. Appropriate limits may be set for point-to-point and point-to-multipoint systems using high gain directional antennas.

11. That in the relevant 5 GHz bands, peak emissions outside of frequency bands of operation be attenuated as follows:

   (1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

   (2) For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission e.i.r.p. limit of -27 dBm/MHz in the 5150-5250 MHz band.

   (3) For transmitters operating in the 5725-5825 MHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

\footnote{Administrations with existing regulations prior to this Conference may exercise some flexibility in determining transmitter power limits.}
PCC.II/REC. 12 (VI-05) 10

PROCEDURES AND GUIDELINES FOR BLOCK OR GENERIC LICENSING FOR EARTH STATION OPERATING IN FREQUENCY BANDS NOT SHARED WITH OTHER SYSTEMS

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

CONSIDERING:

a) The Third Summit of the Americas (Quebec 2001) requested “ministries or departments responsible for telecommunications and appropriate regulatory bodies to cooperate, within CITEL, in order to clarify and simplify rules governing the provision of satellite services in our countries…” and “promote the modernization and expansion of telecommunications infrastructure in rural and urban areas through timely introduction of new technologies and services, in particular broadband technologies…”;

b) That the Block or Generic Earth Station Licensing as a mechanism to authorize large numbers of technically-identical satellite Earth Stations in a single license or in “blocks” can allow the rapid implementation and use of Earth Stations;

c) That there are currently no details for use of Block or Generic Earth Station Licensing;

d) That CITEL countries would benefit if procedures could be used for the use of Block or Generic Earth Station Licensing;

e) That a Sub-Working Group was established in the III Meeting of PCC II by the decision PCC.II/DEC.19 (III-04) to develop procedures and guidelines for block or generic earth station licensing that could be used by CITEL Administrations for the licensing of FSS earth stations operating in up link frequency bands not shared with other services;

f) That the Block or generic Earth Station Licensing can be implemented using different approaches;

10 PCC.II-RADIO/doc. 809 /05 rev.1

PCC.II/REC. 12 (VI-05) 10

PROCEDURES AND GUIDELINES FOR BLOCK OR GENERIC LICENSING FOR EARTH STATION OPERATING IN FREQUENCY BANDS NOT SHARED WITH OTHER SYSTEMS

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

CONSIDERING:

a) The Third Summit of the Americas (Quebec 2001) requested “ministries or departments responsible for telecommunications and appropriate regulatory bodies to cooperate, within CITEL, in order to clarify and simplify rules governing the provision of satellite services in our countries…” and “promote the modernization and expansion of telecommunications infrastructure in rural and urban areas through timely introduction of new technologies and services, in particular broadband technologies…”;

b) That the Block or Generic Earth Station Licensing as a mechanism to authorize large numbers of technically-identical satellite Earth Stations in a single license or in “blocks” can allow the rapid implementation and use of Earth Stations;

c) That there are currently no details for use of Block or Generic Earth Station Licensing;

d) That CITEL countries would benefit if procedures could be used for the use of Block or Generic Earth Station Licensing;

e) That a Sub-Working Group was established in the III Meeting of PCC II by the decision PCC.II/DEC.19 (III-04) to develop procedures and guidelines for block or generic earth station licensing that could be used by CITEL Administrations for the licensing of FSS earth stations operating in up link frequency bands not shared with other services;

f) That the Block or generic Earth Station Licensing can be implemented using different approaches;

g) That in the V meeting of PCC.II decision PCC.II/DEC. 30 (V-05) that the CITEL Executive Secretary was instructed to send to the Administrations the report of the coordinator of this Sub-working group inviting the Administrations to send their comments directly to the coordinator by August, 15, 2005,

RECOMMENDS:

1. That CITEL Administrations that don’t have yet “Block” or “Generic” Earth Station Licensing, consider its use in order to encourage the deployment of satellite services, particularly for broadband services pursuant to the Resolutions issued by the 2001 Summit of the Americas.

2. That CITEL Administrations that don’t have yet procedures and guidelines for “Block” or “Generic” Earth Station Licensing take into account the examples presented in the annexes of this recommendation for the development of their procedures and guidelines.

10 PCC.II-RADIO/doc. 809 /05 rev.1
ANNEX 1 TO RECOMMENDATION PCC.II/REC. 12 (VI-05)

Site-specific Process

LEGEND
SP – Service Provider
NA – National Administration
TES – Typical Earth Station

Start

Is it the first filing of TES technical characteristics?
or, is it necessary to change any TES technical characteristic?

Yes

SP sends to the NA the application form containing new TES technical characteristics or modifications to the existing TES technical characteristics

No

Is the information correct?

Yes

NA analyses the information

NA authorizes TES installation

No

NA analyses the information

SP sends to the NA, by the day [XX], of each month, information on the amount of terminals having the same technical characteristics as the TES installed/uninstalled in the previous month.

Yes

NA sends to the SP the document for payment of the licensing tax (if applicable), associated to the balance resulting from the amount of Earth stations with the same TES characteristics that were installed/uninstalled in the previous month.

SP pays the licensing tax (if applicable) until the due date [XX]

The NA produces and sends to the SP, by the day [XX], the updated Block License reflecting the amount of operating terminals with the revised TES characteristics up to the previous month.

SP sends to the NA, by the day [XX], complementary information/documents (if applicable) related to the TES installed/uninstalled the previous month

Are there new installations?

Yes

Restart

No

End

Note
XX – a reference day to be defined by NA

LEGEND
P2!K-09121c1_i
This Annex describes the process of the flowchart presented in the Annex 1.

Before beginning block licensing of Typical Earth Stations (TES) it is necessary to license the Hub Station (HUB). The Hub Station is licensed individually.

**Blocks 1 and 2**: the Service Provider (SP) sends to the National Administrations (NA) the application form with the TES technical characteristics.

The SP sends to the NA the application again in case of any change in the TES technical characteristics.

Below are presented some technical characteristics that can be requested by the NA to the SP in the first filling:

- Name of the TES
- Name of the Space Station used
- Antenna data (Gain, diameter, type and industry)
- HPA data (power, type and industry)
- Frequency data

Notes:

1. One of the precedents conditions to be permitted the license block of the small terminals of the FSS system is that there is no shared frequency transmission with other systems;

2. The NA can establish other precedents conditions to authorize block licensing as for example the maximum e.i.r.p..

**Block 2.1**: The NA analyses if the information sent by SP is correct and the precedent conditions are met.

**Block 2.2**: If the information is correct and the previous conditions are met, the NA authorizes the beginning of the TES installation.

**Block 3**: After the TES technical characteristics were filed and the beginning of the TES installation was authorized, the SP sends monthly to the NA, at the previously established date by the NA, information on the quantity of terminals having the same technical characteristics as the TES installed/uninstalled in the previous month.

Below some information is included that can be sent monthly to the NA by the SP:

- Name of TES
- Model of Antenna
- Number of TES installed in the previous month
- Number of TES uninstalled in the previous month

**Blocks 4 and 5**: The NA after receiving this information will send the document for the payment of the licensing rights (if applicable), associated to the balance resulting from the quantity of Earth stations with the same TES characteristics that were installed/uninstalled in the previous month.
Note: The NA will establish the way of payment of the taxes and the values applied by each kind of TES

**Block 6:** After the payment of the taxes (if applicable), the NA produces and sends to the SP, the updated Block License reflecting the quantity of operating terminal with the revised TES characteristics up to the previous month.

**Block 7:** The SP sends to the NA, by the date established by the NA, complementary information/documents (if applicable) related to the TES installed/uninstalled in the previous month.
ANNEX 3 TO RECOMMENDATION PCC.II/REC. 12 (VI-05)
Non site-specific process or Spectrum Licensing

SP – Service Provider
NA – National Administration
TES – Typical Earth Station

Start

S.P. files application for the T.E.S. - details of the applicant and technical information

N.A. reviews T.E.S. application for completeness and meeting requirements

Information complete and requirements met

Yes

N.A. requests payment of licence fees, acceptance of conditions

S.P. submits fees and accepts conditions

Yes

N.A. issues licence issued to S.P.

No

Request missing information, clarification, or amendments

Yes

N.A. requests payment of licence fees, acceptance of conditions

S.P. submits fees and accepts conditions

Yes

N.A. issues licence issued to S.P.

No

Licence not issued
ANNEX 4 TO RECOMMENDATION PCC.II/REC. 12 (VI-05)
Procedures and guidelines for block or generic earth station licensing.

This Annex describes the process supported by the flux presented in the Annex 3.

The Service Provider would submit to the National Administration an application that outlines the typical earth station characteristics. If the application is found complete and meets the National Administration requirements a spectrum license would be issued. The spectrum license would allow the service provider to install an unlimited number of Typical Earth Stations. The Service Provider would pay a fixed annual fee for the spectrum license. The Service Provider needs only to return to the National Administration if it wants to change the Typical Earth Station characteristics.

A spectrum license is issued when the applicant accepts in writing the license conditions and pays the license fees.

PCC.II/REC. 13 (VI-05) 11
EXPEDITED COORDINATION OF NOAA’S GOES SATELLITE AT 60 DEG WEST

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

CONSIDERING:

a) That since 1926, over 40,000 people have died from the impacts of hurricanes and tropical storms in the Central and South America and the Caribbean regions;

b) That whenever there is an extreme weather event threatening the North American portion, the current GOES satellite at 75 degrees west is switched to a rapid scan mode;

c) That the rapid scan mode only provides coverage for the North American portion of the World Meteorological Organization (WMO) South Regional Association III (RA III);

d) That Earth Observation Partnership of the Americas (EOPA) participants, specifically RA III national meteorological and hydrological services have requested that the U.S. National Oceanic and Atmospheric Administration (NOAA) consider the possibility of operating a retired geostationary satellite over South America to ensure data availability when the operational satellite’s observations are limited during extreme weather events;

e) That as a response to this request NOAA intends to move one of its retired geostationary satellite to a new orbital position of 60 degrees west,

RECOGNIZING:

That an integrated network of Earth observation systems would help save lives and protect property during future events,

11 PCC.II-RADIO/doc. 875 /05 rev.1
RECOMMENDS:

That CITEL countries identified by the ITU in the coordination process of the NOAA GOES satellite at 60 Deg West consider making the coordination a priority within their Administrations, to expedite the NOAA’s GOES satellite operation at the new orbital location as soon as possible.

PCC.II/REC. 14 (V-05)\textsuperscript{12}

PROCEDURES FOR OPERATION OF EARTH STATIONS ON VESSELS (ESVs)

The VI meeting of the Permanent Consultative Committee II: Radiocommunications including Broadcasting,

CONSIDERING:

a) That WRC-03 adopted changes to the Table of Frequency Allocations to allow for communication between earth stations on vessels (ESV) and space stations in the fixed-satellite service in the bands 5 925-6 425 MHz and 14-14.5 GHz;

b) That WRC-03 approved Resolution 902, “Provisions relating to earth stations located on board vessels which operate in fixed-satellite service networks in the uplink bands 5 925-6 425 MHz and 14-14.5 GHz” providing technical and regulatory guidelines for the operation of ESVs;

c) That subject to Resolution 902 (WRC-03), ESVs may operate in the fixed-satellite service bands listed in considerings a) and b) on a co-primary basis with terrestrial services;

d) That in Region 2, the 5925-6425 MHz uplink band used by ESVs includes allocations to terrestrial services, and is heavily used by fixed service systems;

e) That in Region 2, the 14.4-14.5 GHz portion of the 14-14.5 GHz uplink band used by ESVs includes allocations to terrestrial services;

f) That in Region 2, the ESV downlink bands 3 700-4 200 MHz, 10.95-11.2 and 11.45-12.2 GHz are also allocated to the fixed and mobile service and in-motion ESVs should not claim protection from interference from any authorized terrestrial stations to which frequencies are either already assigned or may be assigned in the future;

g) That the emissions of ESVs operating with ESV hub earth stations licensed by CITEL Administrations are controlled by a network control facility through an ESV hub earth station, without regard to the vessel’s country of registration;

h) That notwithstanding considering g) the emissions of ESVs may also be authorized by the vessel’s country of registration through an ESV terminal license;

\textsuperscript{12} PCC.II-RADIO/doc. 895/05
That pursuant to Resolution 902 (WRC-03), there is a need to subject ESVs to certain limitations in order to prevent harmful interference to authorized systems in the terrestrial services and fixed-satellite service;

That all CITEL countries, including those that neither operate ESV networks nor have terrestrial or fixed-satellite service systems and networks in the bands used by ESVs, would benefit if common procedures could be developed for the operation of ESV networks and the use of ESVs;

NOTING:
That by means of Resolution PCC.II/RES.10 (II-03), a Sub-working Group was created within the Working Group Relative to Satellite Systems to provide Fixed and Mobile Services, with the objective of developing procedures that could be used by CITEL Administrations for authorizing ESVs to use the bands 5925 – 6425 MHz and 14-14.5 GHz.

RECOMMENDS:

1. That CITEL Administrations, when authorizing ESV network hub earth station operations within their territory and/or ESV terminal operations on board their registered vessels in the 5925-6425 MHz and/or 14-14.5 GHz bands, take into account the need to protect co-primary services in those bands from harmful interference, using measures that include:

   a) Technical and operational requirements on ESV operations consistent with Resolution 902 (WRC-03); and

   b) As set forth in the Annex, seeking agreement from concerned Administrations before operating ESVs within the specified minimum distances of those Administrations’ territories, to protect those Administrations’ co-frequency terrestrial fixed and mobile service operations from harmful interference.

2. That for purposes of recommends 1. above, and to ensure adequate protection of co-frequency terrestrial and fixed-satellite service systems from harmful interference, CITEL Administrations authorizing ESV network hub earth station operations within their territory or ESV terminal operations on board their registered vessels in the 5925-6425 MHz and 14-14.5 GHz bands follow the procedures for use of ESVs that are set forth in the Annex to this recommendation;

3. That, with a view to identifying possible frequencies in those bands for ESV use that would avoid potential interference, CITEL Administrations consider the possibility to make available their data base of terrestrial stations operating in the 5925-6425 MHz or 14-14.5 GHz bands or determine those that could be affected by ESV operations;

4. That CITEL Administrations take into account that the operation within the territory, including territorial waters, of a CITEL Administration, of an ESV network in the bands 5925-6425 MHz and 14-14.5 GHz in accordance with the provisions set forth in the Annex is adequate to protect co-frequency terrestrial and fixed-satellite service operations from harmful interference;

INSTRUCTS THE EXECUTIVE SECRETARIAT:

To send present Recommendation to CITEL’s Administration Members.
ANNEX TO RECOMMENDATION PCC.II/REC. 14 (V-05)

Procedures for Use of ESVs in the Bands 5925-6425/3700-4200 MHz and 14-14.5/10.95-11.2 and 11.45-12.2 GHz

A Overview

The following provisions contain the recommended provisions that licensing Administrations, license holders, and CITEL Administrations should apply or rely upon with regard to the operation within Region 2 of ESVs in the fixed-satellite service bands at 5925-6425/3700-4200 MHz and 14-14.5/10.95-11.2 and 11.45-12.2 GHz. These measures are designed to facilitate the introduction and regular use of ESVs within Region 2 while ensuring that such stations follow the applicable and appropriate guidelines (consistent with Resolution 902 (WRC-03)) and thus do not present any potential to cause unacceptable interference to the services of other concerned Administrations.

For purposes of this Annex, the term “licensing Administration” refers either to: a CITEL Administration authorizing ESV network hub earth station operations using the 5925-6425/3700-4200 MHz and/or 14-14.5/10.95-11.2 and 11.45-12.2 GHz bands in its territory and/or a CITEL Administration authorizing ESV terminal operations in the same band or bands within Region 2 on board its registered vessels. ESV hub earth stations are earth stations located on the territory of a CITEL Administration that are used to control, through network control facilities, the operation of ESV terminals on board vessels that are affiliated with the ESV network when communicating with the hub earth station. The ESVs so affiliated with the ESV network can, but need not be, on vessels registered to the CITEL Administration where the hub is located.

For purposes of this Annex, a CITEL Administration is considered to be a concerned Administration for those frequencies in which it has fixed or mobile services assigned on a primary basis in the uplink band employed by the ESV operator (all or part of the 5925-6425 MHz and 14-14.5 GHz bands).

ESVs in motion should not claim protection from harmful interference from any authorized terrestrial stations or lawfully operating satellites to which frequencies are either already assigned, or may be assigned in the future in the 3700-4200 MHz (space-to-Earth), 10.95-11.2 GHz (space-to-Earth) and 11.45-11.7 GHz (space-to-Earth) frequency bands.

Section B below contains provisions for the use of ESVs in the 5925-6425/3700-4200 MHz bands. Section C below contains provisions for the use of ESVs in the bands 14-14.5/10.95-11.2 and 11.45-12.2 GHz. Section D below contains operational measures applicable to all ESVs to avoid causing unacceptable interference.

B Provisions for ESVs transmitting in the 5925-6425 MHz Bands

The following provisions apply for the use of ESVs in the 5925-6425 MHz band:

1. Minimum Distance
The minimum distance from the baseline, as officially recognized by the coastal State\(^{13}\) beyond which ESVs can operate without the prior agreement of any concerned Administration, as defined above, is 300 km (or a lesser distance if one has been established in the national regulations of the concerned Administration) in the 5 925-6 425 MHz band taking into account the following technical limitations:\(^{14}\)

<table>
<thead>
<tr>
<th>5 925-6 425 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracking accuracy of ESV antenna</td>
</tr>
<tr>
<td>Maximum ESV e.i.r.p. spectral density toward the horizon</td>
</tr>
<tr>
<td>Maximum ESV e.i.r.p. toward the horizon</td>
</tr>
<tr>
<td>Maximum off-axis e.i.r.p. density *</td>
</tr>
<tr>
<td>Minimum gross tonnage of vessels for ESV operation</td>
</tr>
<tr>
<td>Minimum angle of antenna elevation</td>
</tr>
</tbody>
</table>

* In the case that the e.i.r.p. off-axis levels in an FSS intersystem coordination agreement that is applicable to an FSS network with which an ESV will communicate are more stringent than the levels provided below, the ESV will be limited to operating at the more stringent off-axis e.i.r.p. density levels in the relevant FSS intersystem coordination agreement(s). To the extent that ESVs operating in the band 5925-6425 MHz do not both 1) meet the off-axis e.i.r.p. density levels provided below; and 2) complete any applicable coordination obligations prior to the commencement of operations, then they must use an antenna with a diameter of at least 2.4 m.

** Upon a showing that the emission path will be seaward and away from land masses or upon a special showing of need for lower angles by the applicant, an Administration’s licensing authority may consider authorizing emissions at angles between 3° and 5° in pertinent directions. In certain instances, it may be necessary for the licensing Administration to specify minimum angles greater than 5° because of interference considerations. Even in cases where angles less than 5° are requested, any relevant restrictions on e.i.r.p. and e.i.r.p. density toward the horizon – i.e., the values from Resolution 902 (WRC-03) – should apply.

*Note: Section B.4 below applies with regard to emissions from ESVs within the minimum distances of a concerned Administration.*

---

\(^{13}\) For purposes of this recommendation, “baseline” means the line from which maritime zones are measured, and is a combination of the low-water line (low-tide elevation) and closing lines across the mouths of inland water bodies. The baseline is defined by a series of baseline points. The baseline points are not just the low-water marks of the shore of the mainland, but also include islands and low-tide elevations (i.e., natural rocks). Baseline points are ambulatory (i.e., not stationary), and thus require official adjustment from time-to-time.

\(^{14}\) The minimum distance beyond which prior agreement is not required for the 5925-6425 MHz band is set in this Annex at 200 km, rather than at the 300 km distance in Resolution 902 (WRC-03) because, as a technical matter, there is no prospect for harmful interference to a terrestrial fixed service assignment from an ESV with the referenced technical characteristics operating more than 200 km from the baseline.
2. **Off-Axis e.i.r.p. Spectral Density Levels**

As agreed in Resolution 902 (WRC-03), CITEL Administrations that do not adopt the stricter limits proposed here, should ensure that the off-axis e.i.r.p. spectral density values do not exceed those permitted under Resolution 902 (WRC-03), Annex 2

For earth stations on board vessels operating in the 5 925-6 425 MHz band:

(1) The off-axis e.i.r.p. spectral density for co-polarized signals, emitted from the ESV, in the plane of the geostationary satellite orbit as it appears at the particular earth station location (i.e., the plane determined by the focal point of the antenna and the line tangent to the arc of the geostationary satellite orbit at the position of the target satellite), should not exceed the following values:

\[
\begin{align*}
26.3 - 25 \log(\theta) \text{ dBW/4kHz} & \quad 1.0^\circ \leq \theta \leq 7.0^\circ \\
5.3 \text{ dBW/4kHz} & \quad 7.0^\circ < \theta \leq 9.2^\circ \\
29.3 - 25 \log(\theta) \text{ dBW/4kHz} & \quad 9.2^\circ < \theta \leq 48^\circ \\
-12.7 \text{ dBW/4kHz} & \quad 48^\circ < \theta \leq 180^\circ 
\end{align*}
\]

(2) In all other directions, the off-axis e.i.r.p. spectral density for co-polarized signals emitted from the ESV should not exceed the following values:

\[
\begin{align*}
29.3 - 25 \log(\theta) \text{ dBW/4kHz} & \quad 1.0^\circ \leq \theta \leq 48^\circ \\
-12.7 \text{ dBW/4kHz} & \quad 48^\circ < \theta \leq 180^\circ 
\end{align*}
\]

(3) For \( \theta > 7^\circ \), the values given in paragraph (a)(1) of this Section should not be exceeded by more than 10% of the earth station antenna sidelobes, provided that no individual sidelobe exceeds the criteria given by more than 3 dB.

(4) In all directions, the off-axis e.i.r.p. spectral density for cross-polarized signals emitted from the ESV should not exceed the following values:

\[
\begin{align*}
16.3 - 25 \log(\theta) \text{ dBW/4kHz} & \quad 1.8^\circ \leq \theta \leq 7.0^\circ \\
-4.7 \text{ dBW/4kHz} & \quad 7.0^\circ < \theta \leq 9.2^\circ 
\end{align*}
\]

Where \( \theta \) is the angle in degrees from the axis of the main lobe.

**NOTES:**

1) For non-circular ESV antennas, the major axis of the antenna should be aligned with the tangent to the geostationary satellite orbital arc at the target satellite point, to the extent required to meet specified off-axis e.i.r.p. criteria.

2) The foregoing off-axis e.i.r.p. spectral density values are appropriate for a two-degree spacing environment, instead of the three-degree spacing environment that is contemplated for the off-axis e.i.r.p. spectral density values in Resolution 902 (WRC-03).

3. **Licensing Provisions for Networks of ESVs Comprised of a Hub Station(s) and One or More Types of ESV Terminals**
To the extent that a CITEL Administration seeks to become a licensing Administration for ESV terminals or to authorize within its territory an ESV hub earth station (including ESV network control facility) for an ESV network that will operate within Region 2, they should ensure compliance with the technical requirements for ESV terminals using either their national regulations or the following provisions:

a) Applications for ESV operations in the 5925-6425 MHz band communicating with geostationary satellites in the fixed-satellite service should include, in addition to whatever minimum requirements apply to non-ESV earth station applications, for each ESV terminal type:

   (1) A series of e.i.r.p. density charts or tables, calculated for a production ESV earth station antenna, based on measurements taken on a calibrated antenna range at 6.0 GHz, with the off-axis e.i.r.p. envelope set forth above superimposed, as follows:

      (i) showing off-axis co-polarized e.i.r.p. spectral density in the azimuth plane, for off-axis angles from minus 10° to plus 10° and from minus 180° to plus 180°.
      (ii) showing off-axis co-polarized e.i.r.p. spectral density in the elevation plane, at off-axis angles from 0° to plus 30°.
      (iii) showing off-axis cross-polarized e.i.r.p. spectral density in the azimuth plane, at off-axis angles from minus 10° to plus 10°.
      (iv) showing off-axis cross-polarized e.i.r.p. spectral density in the elevation plane, at off-axis angles from minus 10° to plus 10°.

Or

   (2) A series of gain charts or tables, for a production earth station antenna, measured on a calibrated antenna range at 6.0 GHz, with the Earth station antenna gain envelope set forth in Sections (a) and (b) of the Attachment to the Annex superimposed, for the same planes and ranges enumerated in paragraphs (a)(1)(i) through (a)(1)(iv) of this Section, that, combined with input power density, demonstrates that off-axis e.i.r.p. spectral density envelope set forth above will be met.

Or

   (3) A certification that the antenna conforms to the gain pattern criteria of Sections (a) and (b) of the Attachment to the Annex that, combined with input power density, demonstrates that the off-axis e.i.r.p. spectral density envelope set forth above will be met.

(b) There should be an exhibit included with the application describing the geographic area(s) in which the ESVs will operate.

4. Agreements with Concerned Administrations for the Use of Frequencies by ESVs Operating in the 5925-6425 MHz Band

a) Before an ESV commences operations in the 5925-6425 MHz (Earth-to-space) band within 300 km (or a lesser distance if one has been established in the national regulations of the concerned Administration) from the baseline of a concerned Administration, an ESV licensing Administration should obtain agreement from the concerned Administration with respect to specific frequencies for ESV use, to protect existing and authorized terrestrial systems. The agreement should be based upon the guidance provided in the ITU-R Recommendations applicable to ESV use, and on mutually agreed
criteria. A summary of the principal terms of the agreement should be maintained by and made available from the participating Administrations.

b) The ESV licensing Administration should ensure that ESV terminals automatically cease emissions if the ESV terminal operates in violation of the terms of the agreement referenced in Section B.4(a) above, including, but not limited to, conditions related to speed of the vessel or if the ESV travels outside the coordinated area, if within 300 km (or a lesser distance if one has been established in the national regulations of the concerned Administration) from the baseline of the ESV licensing Administration.

C Provisions for ESVs in the 14-14.5/10.95-11.2 and 11.45-12.2 GHz Bands

The following provisions apply for the use of ESVs in the 14-14.5/10.95-11.2 and 11.45-12.2 GHz bands:

1. Minimum Distance

The minimum distance from the baseline, as officially recognized by the coastal State, beyond which ESVs can operate without the prior agreement of any concerned Administration, as defined above, is 125 km in the 14-14.5 GHz band taking into account the following technical limitations:

<table>
<thead>
<tr>
<th></th>
<th>14-14.5 GHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracking accuracy of ESV antenna</td>
<td>±0.2° peak</td>
</tr>
<tr>
<td>Maximum ESV e.i.r.p. spectral density toward the horizon</td>
<td>12.5 dB(W/MHz)</td>
</tr>
<tr>
<td>Maximum ESV e.i.r.p. toward the horizon</td>
<td>16.3 dBW</td>
</tr>
<tr>
<td>Maximum off-axis e.i.r.p. density *</td>
<td>See section C.2 below</td>
</tr>
<tr>
<td>Minimum gross tonnage of vessels for ESV operation</td>
<td>None</td>
</tr>
<tr>
<td>Minimum angle of antenna elevation **</td>
<td>5°***</td>
</tr>
</tbody>
</table>

* In the case that the e.i.r.p. off-axis levels in an FSS intersystem coordination agreement that is applicable to an FSS network with which an ESV will communicate are more stringent than the levels provided below, the ESV will be limited to operating at the more stringent off-axis e.i.r.p. density levels in the relevant FSS intersystem coordination agreement(s). The minimum antenna diameter should be 1.2 meters for 14-14.5 GHz band ESVs unless the ESV meets the off-axis e.i.r.p. density levels provided below and completes any applicable terrestrial agreement with concerned Administrations prior to the commencement of operations.

** Upon a showing that the emission path will be seaward and away from land masses or upon a special showing of need for lower angles by the applicant, an Administration’s licensing authority will consider authorizing emissions at angles between 3° and 5° in pertinent directions. In certain instances, it may be necessary for the licensing Administration to specify minimum angles greater than 5° because of interference considerations. Even in cases where angles less than 5° are requested, any relevant restrictions on e.i.r.p. and e.i.r.p. density toward the horizon would – i.e., the values from Resolution 902 (WRC-03) – apply.

15 See note 1.
2. Off-Axis e.i.r.p. Spectral Density Levels

As agreed in Resolution 902 (WRC-03), CITEL Administrations that do not adopt the stricter limits proposed here, should ensure that the off-axis e.i.r.p. spectral density values do not exceed those permitted under Resolution 902 (WRC-03), Annex 2.

For earth stations on board vessels operating in the 14-14.5 GHz band:

(1) The off-axis e.i.r.p. spectral density for co-polarized signals, emitted from the ESV in the plane of the geostationary satellite orbit as it appears at the particular earth station location (i.e., the plane determined by the focal point of the antenna and the line tangent to the arc of the geostationary satellite orbit at the position of the target satellite), should not exceed the following values:

- $15 - 25 \log(\theta) \text{ dBW/4kHz}$ for $1.25^\circ \leq \theta \leq 7.0^\circ$
- $-6 \text{ dBW/4kHz}$ for $7.0^\circ < \theta \leq 9.2^\circ$
- $18 - 25 \log(\theta) \text{ dBW/4kHz}$ for $9.2^\circ < \theta \leq 48^\circ$
- $-24 \text{ dBW/4kHz}$ for $48^\circ < \theta \leq 180^\circ$

(2) In all other directions, the off-axis e.i.r.p. spectral density for co-polarized signals emitted from the ESV should not exceed the following values:

- $18 - 25 \log(\theta) \text{ dBW/4kHz}$ for $1.25^\circ \leq \theta \leq 48^\circ$
- $-24 \text{ dBW/4kHz}$ for $48^\circ < \theta \leq 180^\circ$

(3) For $\theta > 7^\circ$, the values given in paragraph (b)(1) of this Section should not be exceeded by more than 10% of the sidelobes, provided that no individual sidelobe exceeds the criteria given by more than 3 dB.

(4) In all directions, the off-axis e.i.r.p. spectral density for cross-polarized signals emitted from the ESV should not exceed the following values:

- $5 - 25 \log(\theta) \text{ dBW/4kHz}$ for $1.8^\circ \leq \theta \leq 7^\circ$
- $-16 \text{ dBW/4kHz}$ for $7^\circ < \theta \leq 9.2^\circ$

Where $\theta$ is the angle in degrees from the axis of the main lobe.

NOTES:

1) For non-circular ESV antennas, the major axis of the antenna should be aligned with the tangent to the geostationary satellite orbital arc at the target satellite point, to the extent required to meet specified off-axis e.i.r.p. criteria.

2) The foregoing off-axis e.i.r.p. spectral density values are appropriate for a two-degree spacing environment, instead of the three-degree spacing environment that is contemplated for the off-axis e.i.r.p. spectral density values in Resolution 902 (WRC-03).
3. Licensing Provisions for Networks of ESVs Comprised of a Hub Station(s) and One or More Types of ESV Terminals

To the extent that a CITEL Administration seeks to become a licensing Administration for ESVs or to establish on its territory an ESV hub earth stations (including ESV network control facility) for ESVs that will operate within Region 2, they should ensure compliance with the technical requirements for ESV terminals using either their national regulations or the following provisions:

a) Applications for ESV operation in the 14-14.5 GHz (Earth-to-space) to geostationary satellites in the fixed-satellite service should include, in addition to whatever minimum requirements apply to non-ESV earth station applicants, for each ESV earth station antenna type:

(1) A series of e.i.r.p. density charts or tables, calculated for a production earth station antenna, based on measurements taken on a calibrated antenna range at 14.25 GHz, with the off-axis e.i.r.p. envelope set forth above superimposed, as follows:

(i) showing off-axis co-polarized e.i.r.p. spectral density in the azimuth plane, for off-axis angles from minus 10° to plus 10° and from minus 180° to plus 180°.
(ii) showing off-axis co-polarized e.i.r.p. spectral density in the elevation plane, at off-axis angles from 0° to plus 30°.
(iii) showing off-axis cross-polarized e.i.r.p. spectral density in the azimuth plane, at off-axis angles from minus 10° to plus 10°.
(iv) showing off-axis cross-polarized e.i.r.p. spectral density in the elevation plane, at off-axis angles from minus 10° to plus 10°.

Or

(2) A series of gain charts or tables, for a production earth station antenna, measured on a calibrated antenna range at 14.25 GHz, with the Earth station antenna gain envelope set forth in Sections (a) and (b) of the Attachment to the Annex superimposed, for the same planes and ranges enumerated in paragraphs (b)(1)(i) through (b)(1)(iv) of this Section, that, combined with input power density, demonstrates that off-axis e.i.r.p. spectral density envelope set forth above will be met.

Or

(3) A certification that the antenna conforms to the gain pattern criteria of Sections (a) and (b) of the Attachment to the Annex that, combined with input power density, demonstrates that the off-axis e.i.r.p. spectral density envelope set forth above will be met.

b) There should be an exhibit included with the application describing the geographic area(s) in which the ESVs will operate.

4. Agreements with concerned Administrations for the use of frequencies by ESVs Operating in the 14.4-14.5 GHz band

a) Before an ESV commences operation in the 14.4-14.5 MHz (Earth-to-space) band within 125 km from the baseline of a concerned Administration, an ESV licensing Administration should obtain agreement from the concerned Administration, with respect to specific frequencies for ESV use, to protect
existing and authorized terrestrial systems. The agreement should be based upon the guidance provided in the ITU-R Recommendations applicable to ESV use, and on mutually agreed criteria. A summary of the principal terms of the agreement should be maintained by and available from the participating Administrations.

b) The ESV licensing Administration should ensure that ESV terminals automatically cease emissions if the ESV terminal operates in violation of the terms of the agreement referenced in Section C.4(a) above.

D Operational measures to avoid unacceptable interference

1. The CITEL ESV licensing Administration should ensure that ESV stations do not cause unacceptable interference to the services of other Administration members following the provisions described in Sections B and C above.

2. In the event that unacceptable interference occurs, the CITEL ESV licensing Administration should eliminate the source of any interference from its station immediately upon being advised of such interference. For purposes of this provision, the CITEL ESV licensing Administration should identify a point of contact, with phone number and address, available 24 hours a day, seven days a week, with authority and ability to cease all emissions from the ESVs, either directly or through the facilities of a hub earth station through which the ESVs communicate.

3. For each ESV terminal licensed by a CITEL Administration or operating as part of an ESV network using an ESV hub earth station licensed by a CITEL Administration, a record of the ship location (i.e., latitude/longitude), transmit frequency, channel bandwidth and satellite used should be time annotated and maintained by the ESV operator for a period of not less than 1 year. Records should be recorded at time intervals no greater then every 20 minutes while the ESV is transmitting. In the event that harmful interference from an ESV to a fixed service link is suspected, the ESV network operator should make this data available upon request to a coordinator, fixed system operator, fixed-satellite system operator, or the licensing authority within 24 hours of the request.

4. ESV network operators authorized by one CITEL Administration but communicating with vessels registered to another Administration should maintain detailed information on each vessel’s country of registry and a point of contact for the relevant Administration responsible for licensing ESVs.
ATTACHMENT TO ANNEX
ANTENNA PERFORMANCE STANDARDS\(^{16}\)

(a) The gain of any antenna to be employed in emission from an earth station in the geostationary satellite orbit fixed-satellite service (GSO FSS) should lie below the envelope defined as follows:

(1) In the plane of the geostationary satellite orbit as it appears at the particular earth station location:

\[
\begin{align*}
29 - 25 \log_{10} (\theta) \text{ dBi} & \quad 1^\circ \leq \theta \leq 7^\circ \\
+8 \text{ dBi} & \quad 7^\circ < \theta \leq 9.2^\circ \\
32 - 25 \log_{10} (\theta) \text{ dBi} & \quad 9.2^\circ < \theta \leq 48^\circ \\
-10 \text{ dBi} & \quad 48^\circ < \theta \leq 180^\circ 
\end{align*}
\]

Where:

\(\theta\) is the angle in degrees from the axis of the main lobe and dBi refers to dB relative to an isotropic radiator. For the purposes of this section, the peak gain of an individual sidelobe may not exceed the envelope defined above for \(\theta\) between 1.0 and 7.0 degrees. For \(\theta\) greater than 7.0 degrees, the envelope may be exceeded by no more than 10% of the sidelobes, provided no individual sidelobe exceeds the gain envelope given above by more than 3 dB.

(2) In all other directions, or in the plane of the horizon including any out-of-plane potential terrestrial interference paths:

Outside the main beam, the gain of the antenna should lie below the envelope defined by:

\[
\begin{align*}
32 - 25 \log_{10} (\theta) \text{ dBi} & \quad 1^\circ \leq \theta \leq 48^\circ \\
-10 \text{ dBi} & \quad 48^\circ < \theta \leq 180^\circ 
\end{align*}
\]

Where:

\(\theta\) and dBi are defined above. For the purposes of this section, the envelope may be exceeded by no more than 10% of the sidelobes provided no individual sidelobe exceeds the gain envelope given above by more than 6 dB. The region of the main reflector spillover energy is to be interpreted as a single lobe and shall not exceed the envelope by more than 6 dB.

(b) The off-axis cross-polarization gain of any antenna to be employed in emission from an earth station to a space station in the domestic fixed-satellite service should be defined by:

\[
\begin{align*}
19 - 25 \log_{10} (\theta) \text{ dBi} & \quad 1.8^\circ < \theta \leq 7^\circ \\
-2 \text{ dBi} & \quad 7^\circ < \theta \leq 9.2^\circ 
\end{align*}
\]

---

\(^{16}\) One method for satisfying the ESV off-axis e.i.r.p. density requirements is to provide antenna gain patterns that demonstrate compliance with this Attachment’s antenna performance requirements, combined with input power density demonstrating that the ESV off-axis e.i.r.p. spectral density envelope will be met. (See Section B.3 and C.3 above.).
**PCC.II/REC. 15 (VI-05)**

**TECHNICAL AND REGULATORY ASPECTS RELATED TO THE EFFECTS OF ELECTROMAGNETIC NON IONIZING EMISSIONS**

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

**HAVING SEEN:**

a) That in virtue of permanent evolution of technologies used in wireless communications, the need of installation of antennas and its associated elements has increased, especially in the dense inhabited areas, and

b) That general population has expressed concern because of the possible effects of non-ionizing emissions, specially with the proliferation of these antennas,

**CONSIDERING:**

a) That is the responsibility of telecommunication and broadcasting authorities to establish technical regulations for usage of the radioelectric spectrum;

b) That it is important that population in its whole be properly informed about the regulations in force regarding to non-ionizing radioelectric emissions;

c) That Administrations of the Americas have interest and need to have available scientific information for development of their own regulations;

d) That compilation of the scientific information will contribute in order for CITEL members to have more background for its analysis and afterwards make decision making, and

e) That PCC.II has compiled the available regulatory information in all the countries of the Americas, as well as the important scientific associations that have studied the topic,

**RECOGNIZING:**

a) That a few country members have not yet developed a regulation of use of the non-ionizing electromagnetic emissions and some of them are in their regulation development stage;

b) That in a few countries of the region it is observed the need to increase the spreading on the aspects related to the non-ionizing radio electric emissions,

**RECOMMENDS:**

1. To the country members that have not yet developed an specific regulation about the topic, that when they perform the same, follow the recommendations of the Health World Organization, the
International Telecommunication Union, in its recommendation ITU-T K-52, taking also into account the Recommendations of ICNIRP as appropriate.

2. To the Administrations that consider it appropriately, according to their particular reality, to spread the contents of the work “The Regulation on Non-ionizing Electromagnetic Emissions in the Americas” among all the involved actors.

3. To the public and private organizations, users of the radiocommunication spectrum and its representatives associations that develop information campaigns to assist the public to understand the scope of the electromagnetic radiation effects that are produced by the equipments used to provide their services.
V. DECISIONS

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

DECIDES:

<table>
<thead>
<tr>
<th>PCC.II/DEC. 37 (VI-05) 18</th>
<th>To instruct the Secretariat of CITEL to establish a discussion group on the topic of Broadband Wireless Access in the electronic forum of CITEL, with the following terms of reference:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• To consider how PCC.II should address broadband wireless access (for example: recommendation, decision, etc) taking into account the work done by PCC.II on broadband wireless access in the past</td>
</tr>
<tr>
<td></td>
<td>• To answer the preliminary questions related to broadband wireless access systems operating under 6 GHz, annexed hereto</td>
</tr>
<tr>
<td></td>
<td>• To formulate other appropriate questions and answers pertaining to broadband wireless access</td>
</tr>
<tr>
<td></td>
<td>• To identify and follow the ongoing activities in the ITU-R and standards bodies related to broadband wireless access</td>
</tr>
<tr>
<td></td>
<td>• To report on its progress to each meeting of the PCC.II Working Group on Terrestrial Fixed and Mobile Radiocommunication Services, and decide whether the discussion group should continue</td>
</tr>
<tr>
<td></td>
<td>• To designate Mr. Rubén Arenas (<a href="mailto:rarenas@conatel.gov.ve">rarenas@conatel.gov.ve</a>) as the coordinator of this discussion group.</td>
</tr>
</tbody>
</table>

ANNEX TO DECISION PCC.II/DEC.37 (VI-05)

QUESTIONNAIRE ON BROADBAND WIRELESS ACCESS OPERATING UNDER 6 GHz

1. Describe the broadband wireless access systems currently operating under 6 GHz in your country, indicating the frequency bands, channelization, type of system (point to point, point to multipoint, omnidirectional), duplexing system (FDD/TDD) and any other relevant information.

2. Does your Administration have plans to deploy broadband wireless access systems operating under 6 GHz?. If so, please specify the frequency bands, channelization, type of system (point to point, point to multipoint, omnidirectional), duplexing system (FDD/TDD) and any other relevant information.

| PCC.II/DEC. 38 (VI-05) 19 | To instruct the CITEL Secretariat to make World Radiocommunication Conference (WRC) related documents available in the open section of the CITEL website dealing with the activities of the PCC.II Working Group for the preparation of Regional and World Radiocommunication Conferences. |

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18 PCC.II-RADIO/doc. 889/05 rev.1
To instruct the Secretariat of CITEL to establish a discussion group on the topic of Broadband Power Line (BPL) in the electronic forum of CITEL, with the following terms of reference:

- To consider how CITEL PCC.II should address broadband power line (for example: recommendation, decision, etc).
- To formulate appropriate questions and answers pertaining to broadband power line, with particular focus given to interference issues, technical regulation and mitigation techniques.
- To gather information from the ITU-R and other relevant bodies related to broadband power line.
- To report on its progress to each meeting of the PCC.II Working Group on Terrestrial Fixed and Mobile Radiocommunication Services and decide whether the discussion group should continue.
- To designate Mr. Galo Prócel, of Ecuador (gprocel@conatel.gov.ec) as the coordinator of this discussion group.

1. To instruct the Secretariat of CITEL to send document CCP.II-RADIO/doc.0890/05 rev.2 in consultation to ICAO requesting their opinion on those aspects which are within their competency.

2. This opinion from ICAO should be received in time for the next meeting of PCC.II which will be held on April 18 to 21, 2006. ICAO is requested to provide a representative to this meeting in order to facilitate the finalization of the draft recommendation contained in document CCP.II-RADIO/doc.0890/05 rev.2.

1. To create a Sub-Working Group of the Working Group Relative to Satellite Systems to Provide Fixed and Mobile Services, to develop proposals in order to provide a solution to the problem of harmful interference of unauthorized transmissions to satellite communication systems.

2. To designate the Administration of Mexico, in the person of Mr. Alonso Picazo Díaz, to head the subgroup.

3. To request the Coordinator to prepare a draft resolution for the next PCC.II meeting to present the work plan with its corresponding activities, taking into account the issues of document CCP.II/doc. 860/05.

4. To instruct the Executive Secretary of CITEL to send document CCP.II/doc. 860/05 to the Administrations for their review and comments.
VI. LIST OF BASIC DOCUMENTS

Summary Minutes of the Inaugural Session and the First Plenary Session: CCP.II-RADIO/doc.876/05 rev.1
Summary Minutes of the Second Plenary Session: CCP.II-RADIO/doc.904/05
Summary Minutes of the Third Plenary Session and Closing Session: CCP.II-RADIO/doc.910/05 rev.1
List of Documents: CCP.II-RADIO/doc.765/05 rev.4
List of Participants: CCP.II-RADIO/doc.766/05 rev.3
Final Report for the Meeting: CCP.II-RADIO/doc. 912/05 rev.1