



**ORGANIZACION DE LOS ESTADOS AMERICANOS
ORGANIZATION OF AMERICAN STATES**

**Comisión Interamericana de Telecomunicaciones
Inter-American Telecommunication Commission**

**XVIII MEETING OF PERMANENT
CONSULTATIVE COMMITTEE III:
RADIOCOMMUNICATIONS
June 11-15, 2001
Ottawa, Canada**

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FINAL REPORT

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FINAL REPORT

XVIII MEETING OF THE PERMANENT CONSULTATIVE COMMITTEE III: RADIOCOMMUNICATIONS (PCC.III)

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications was held in Ottawa, Canada, June 11 to 15, 2001.

I. AGENDA¹

1. Approval of the Agenda and Calendar.
2. Appointment of the Drafting Group for the Final Report.
3. Restructuring of the working methods of PCC.III.
4. Meeting and Report of Working Groups and Ad Hoc Chairs on the following topics:
 - 4.1 World Radiocommunication Conference.
 - 4.2 Satellite systems to provide fixed and mobile services.
 - 4.3 Terrestrial Fixed and Mobile Radiocommunication Services.
 - 4.4 Preparation of the WTDC-02.
 - 4.5 ITU Radiocommunication Assembly And Radiocommunication Advisory Group Matters.
 - 4.6 Study of approaches that facilitate the Migration of existing Radiocommunication Systems in order to make spectrum available for new Radiocommunication Systems.
5. Report of the tasks realized in coordination with ITU.
6. Status of the databases in development.
7. Agenda, Venue and Date of the XIX Meeting of PCC.III.
8. Other matters.
9. Analysis of Procedures for submitting joint proposals to the ITU-R.
10. Approval of the Final Report of the XVIII Meeting.

II. AUTHORITIES OF THE MEETING

Chair:	Mr. Fernando Carrillo (Mexico)
Vice-Chair:	Mr. Marco Bafutto (Brazil)
Executive Secretary:	Mr. Clovis Baptista (CITEL)

¹ Document PCC.III/doc.1868/00 rev.1

Drafting Group:

Chair: Mr. William Taylor (Canada)
Members: Ms. Fahmina Kabir (Canada)
Ms. Chantal Lamarche (Canada)
Mr. Rodrigo Robles (Guatemala)
Mr. Carmelo Rivera (United States)
Mr. Jonathan Siverling (United States)
Mr. Luis Ramos (Venezuela)

III. RESOLUTIONS

PCC.III/RES. 118 (XVIII-01)²

AGENDA, VENUE AND DATE OF THE XIX MEETING

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications,

RESOLVES:

1. To hold the XIX meeting of PCC.III in Guatemala City, Guatemala, November 6-9, 2001.
2. To approve the draft agenda for the XIX PCC.III Meeting attached in the Annex.

ANNEX

1. Approval of the Agenda and Calendar.
2. Appointment of the Drafting Group for the Final Report.
3. Restructuring of the working methods of PCC.III.
4. Meeting and Report of Working Groups and Ad Hoc Chairs on the following topics:
 - 4.1 World Radiocommunication Conference.
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 - 4.3 Terrestrial Fixed and Mobile Radiocommunication Services.
 - 4.4 Preparation of the WTDC-02.
 - 4.5 ITU Radiocommunication Assembly and Radiocommunication Advisory Group Matters.
 - 4.6 Study of approaches that facilitate the Migration of existing Radiocommunication Systems in order to make spectrum available for new Radiocommunication Systems.
5. Report of the tasks realized in coordination with ITU.
6. Status of the databases in development.
7. Agenda, Venue and Date of the XX Meeting of PCC.III.
8. Other matters.

² Document PCC.III/doc.1973/01 cor.1.

9. Approval of the Final Report of the XIX Meeting.

PCC.III/RES. 119 (XVIII-01)³

**SUBMITTING INTER-AMERICAN PROPOSALS TO WORLD
RADIOCOMMUNICATION CONFERENCES**

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications,

CONSIDERING:

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

RESOLVES:

1. That PCC.III adopt the procedure attached in the Annex for submitting Inter-American proposals to World Radiocommunication Conferences.
2. That this Resolution replace Resolution PCC.III/RES. 65 (X-98).

³ Document PCC.III/doc. 1960/01 rev.1

ANNEX

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.III 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. WRC-WG: PCC.III Working Group responsible for the preparation of CITEL's documents for World Radiocommunication Conferences.
- b. PROPOSAL: input presented to PCC.III to be discussed in the WRC-WG with a view to it becoming an INTER-AMERICAN PROPOSAL.
- c. DRAFT INTER-AMERICAN PROPOSAL (DRAFT IAP): PROPOSAL which is being considered by PCC.III after the WRC-WG 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.III 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.III 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.III 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 WRC-WG

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

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

Before the FINAL MEETING, the WRC-WG, in a plenary session, will evaluate the support and opposition obtained by the PROPOSALS after the Chair of the WRC-WG 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 PROPOSALS¹ or DRAFT IAPs that have not been previously circulated will not be considered or developed during the FINAL MEETING.

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.III, 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.

During the LIMIT MEETING the support and opposition to each of the DRAFT IAPs will be evaluated.

Consequently during the LIMIT MEETING, the PCC.III, 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;

¹ 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.

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 CITELE, and, exclusively for information purposes, the DRAFT IAPs still in consideration.

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

Step 6.- Sending INTER-AMERICAN PROPOSALS to the ITU

The Secretariat of CITELE will send the IAPs to the ITU in the time frame set by the PCC.III, 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.III 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 CITELE.

A2. SUPPORT

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

Administrations wishing to support a DRAFT IAP being considered in the PCC.III must do so during a PCC.III 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.III plenary session, including the FINAL MEETING, either orally or in writing.
- b.- between PCC.III meetings by sending written notice (letter, fax or e-mail) to the Secretariat of CITELE.

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 CITELE.
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 WRC-WG must do so during a session of the WRC-WG, 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.III, 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.III must include the following elements in the order indicated below:

- a. the names of the CITELE Administrations that expressed their support ;
- b. in square brackets, the names of CITELE Administrations that have not yet made their position known;
- c. the names of the CITELE Administrations that have expressed their opposition.

A4.3. Electronic Forum

A specific area of the CITELE'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.III 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.III 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.III 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.

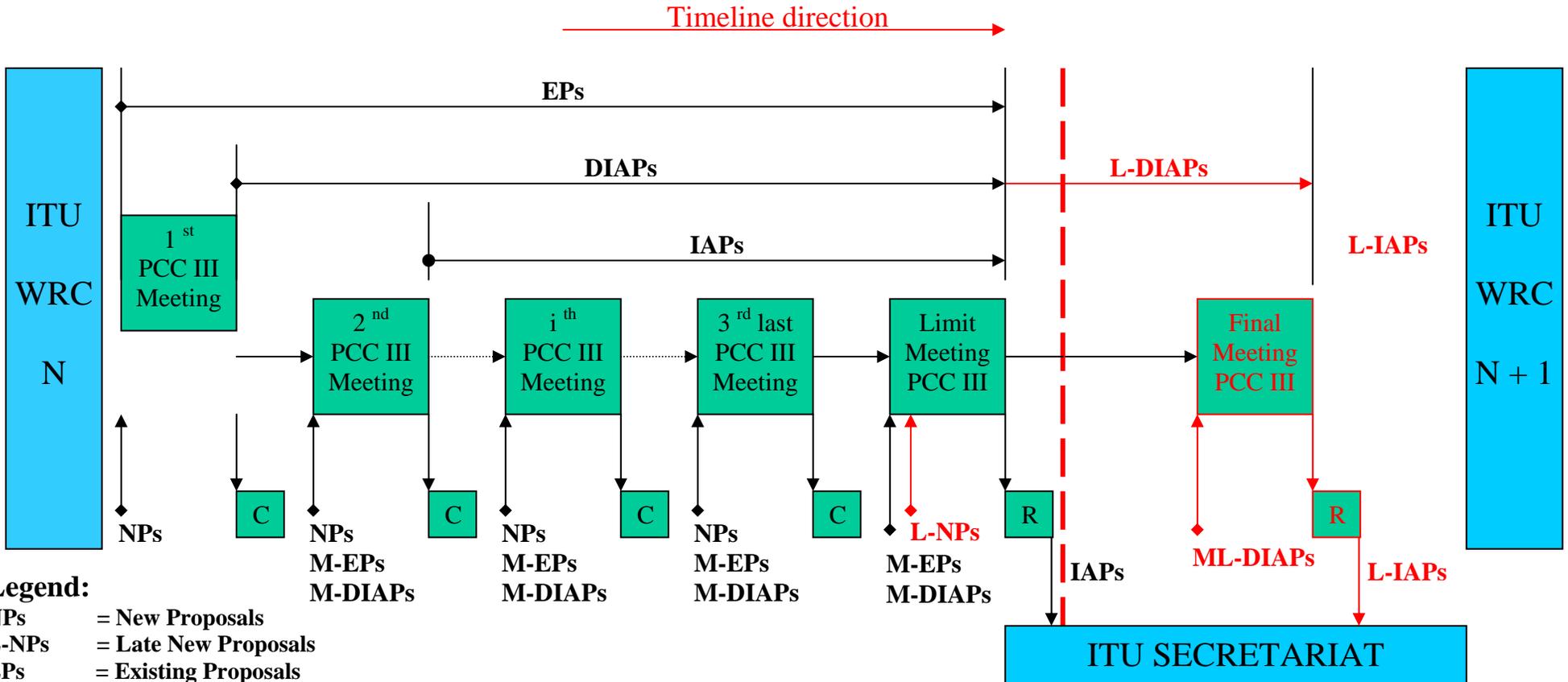
D. APPLICATION OF THIS PROCEDURE

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.III after consultation with the Chair of WRC-WG.

Annex 1

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
-

PCC.III/RES. 120 (XVIII-01)⁴

**PROCEDURES FOR THE PREPARATION OF RESOLUTIONS,
RECOMMENDATIONS AND DECISIONS OF CITEL**

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications,

CONSIDERING:

- a) That it is advisable to clarify existing differences between “resolutions”, “recommendations” and “decisions”, to permit more efficient organization of the work being carried out by the various bodies of CITEL, and
- b) That document PCC.III/doc.1948/01 contains a draft recommendation on the definitions and formats for resolutions, recommendations and decisions of CITEL,

RESOLVES:

To request the Chair of PCC.III to consult with the Chair of COM/CITEL in order to include the study of procedures for the preparation of CITEL resolutions, recommendations and decisions in the agenda for the next meeting of the Steering Committee.

PCC.III/RES. 121 (XVIII-01)⁵

**NOMINATION OF A LIAISON RAPPORTEUR TO FOLLOW
THE PROCESS COORDINATED BY ITU TO FACILITATE
THE GLOBAL CIRCULATION OF IMT-2000**

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications,

CONSIDERING:

- a) That ITU, together with national regulatory authorities and industry, has done considerable work towards the introduction of IMT-2000 systems in the coming years;
- b) That a successful deployment of IMT-2000 has to include the ability of users to carry their terminals when they go from one country to another, and to use those terminals, if accepted and connected by the network operator, in other third-generation networks than their home network, or to simply carry them even if they are not able to use them;

⁴ Document PCC.III/doc.1983/01

⁵ Document PCC.III/doc.1987/01

- c) That IMT-2000 terminals are likely to embody a family of "modes", or different radio interfaces, some of which may not be supported in all countries, and may also incorporate a satellite mode;
- d) That global circulation in the majority of countries is not a problem today for terminals of worldwide systems,
- e) That IMT-2000 technologies provide network operators with the possibility to identify the type of terminal equipment attached to their networks; and
- f) That national and regional authorities should further study and co-operate where necessary in order to remove any obstacles hindering global circulation of IMT-2000 terminals,

TAKING INTO ACCOUNT:

- a) That ITU-R Working Party 8F is developing the technical basis for global circulation of IMT-2000, and
- b) That ITU Secretary-General is discussing the development of arrangements for global circulation of IMT-2000 terminals with various Administrations and representatives of regional bodies and interested stakeholders; and that those discussions could lead to a simple and globally harmonized mechanism based on the technical basis approved in ITU-R,

RESOLVES:

1. To appoint Charles Breig of the Administration of United States of America as the liaison rapporteur to follow the consultation process coordinated by the ITU General Secretariat towards the development of arrangements to facilitate global circulation of IMT-2000 terminals.
2. To establish as the liaison rapporteur mandate:
 - a) To follow the discussions related to the development of arrangements for global circulation of IMT-2000 terminals that could lead to a simple and globally harmonized mechanism based on the technical basis approved in the ITU.
 - b) To follow the work of ITU, especially ITU-R Working Party 8F that is developing the technical basis for global circulation of IMT-2000, by working in cooperation with the ITU IMT-2000 Project Manager.
 - c) To submit a final report to the XIX PCC.III Meeting.

INSTRUCTS THE EXECUTIVE SECRETARY:

To request the CITELE Member States to participate actively in the consultation process of the General Secretariat of the ITU and more specifically to send their comments in reply to ITU Circular Letter No. 97 regarding the principles for global circulation

PCC.III/RES. 122 (XVIII-01)⁶

PREPARATION OF A GUIDE ON LOW POWER DEVICES

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications,

CONSIDERING:

- a) That Recommendation PCC.III/REC. 45 (XII-99) requests to consider the adoption of common technical parameters that would harmonize the development of low power radio devices and facilities in the 5150-5250 MHz, 5250-5350 MHz and 5725-5825 MHz frequency bands;
- b) That it is the interest of CITELE member countries to harmonize their regulations on Low Power Devices;
- c) That such Low Power Devices are increasing not only in the number of applications but also in the number of radio frequencies they use;
- d) That their introduction at the international level would be facilitated by the harmonization of CITELE member country;
- e) That the ITU-R is studying the adoption of a new Recommendation on Low Power Devices, whose preliminary drafts are contained in document 1/19 rev.1, 15 November 2000, and
- f) That PCC.I in its resolution PCC.I/RES.112 (XIV.01) resolved to request PCC.III to coordinate use of the frequency bands utilized by the very low power devices generally known as "Bluetooth",

RESOLVES:

- 1. To task the Terrestrial Fixed and Mobile Radiocommunication Services Working Group with preparation of a guide on Low-Power Devices, taking into account the proposals presented by Brazil, Canada and the United States of America and the structure of ITU-R draft Recommendation 1/19 (rev.1), and it should combine the provisions of the submissions from those three CITELE Administrations.
- 2. To task the representatives of those three CITELE Administrations mentioned in resolve 1 with the preparation of drafts of that guide.
- 3. To designate as coordinator of this guide Mr. Don Jansky of the Administration of the United States of America.

⁶ Document PCC.III/doc.1988/01 rev.2.

4. To instruct him to prepare it by correspondence in time for its consideration at the XIX PCC.III meeting.
5. That this Resolution revokes PCC.III/RES.114(XVII-01).

ANNEX

1. Representatives from United States of America

Don Jansky
Jansky/Barmat Telecommunications
1120, 19th St. NW - Suite 333
Washington, DC – 20036
United States of America
Phone: 1 202-4676400
Fax: 1 202-2966892
E-mail: jansky-barmat@intr.net

Charles Breig
Senior Electronic Engineer - International Bureau
Federal Communications Commission - FCC
445, 12st. Street, SW, Room 7-A633
Washington DC 20554
United States
Phone: 1 202 4182156
Fax: 1 202 4180398
E-mail: Cbreig@fcc.gov

2. Representatives from Canada

Chantal Lamarche
Industry of Canada
Spectrum Engineer
300 Slater St., Jean Edmonds
Tower North, Room 1901A
Ottawa, Ontario, K1A0C8
Canada
Phone: +1 (613) 9904773
Fax: +1 (613) 9525108
Email: lamarche.chantal@ic.gc.ca

Marc Girouard
Industry Canada
Spectrum Engineer
300 Slater St., Jean Edmonds
Tower North, Room 1911^A

Ottawa Ontario, K1A0C8
Canada
Phone: +1 (613) 9984023
Fax: +1 (613) 9525108
Email: girouard.marc.dgse@ic.gc.ca

3. Representative from Brazil

Josino Santos Filho
Engineer
SAS Quadra 06 Bloco H 4º. andar
Brasília – DF
Brazil
Phone: 55 61 3122372
Fax: 55 61 3122328
E-mail: josino@anatel.gov.br

PCC.III/RES. 123 (XVIII-01)⁷

**LIAISON STATEMENT TO COM/CITEL CONCERNING THE PRELIMINARY
CALENDAR OF PCC.III MEETINGS SCHEDULED FOR THE YEARS 2001-
2003**

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications,

CONSIDERING:

- a) That PCC.III is responsible for the preparation of CITEL's views and proposals for ITU-R WRCs;
- b) That the ITU-R prepares a long term calendar of work after each WRC;
- c) That the ITU-R Secretariat has identified deadlines for document submission to be translated in time to be considered during WRCs, and
- d) That PCC.III has adopted Resolution PCC.III/RES.119 (XVIII-01) which contains a procedure for the adoption of Inter-American proposals;

RESOLVES:

1. To approve the attached Draft Calendar of PCC.III Meetings.
2. To request the Chair of PCC.III to present the attached long term draft calendar of PCC.III meetings to the Steering Committee of CITEL.

⁷ document PCC.III/doc.1998/01.

INSTRUCTS THE EXECUTIVE SECRETARY:

To send the attached draft calendar to the Chair of COM/CITEL for his consideration during the work of future meetings of COM/CITEL.

ANNEX

Long Term Draft Calendar of PCC.III Meetings

Year	Month	Organization	Location
2001	January		
	February		
	March	PCC.III	Panama City, Panama
	April		
	May		
	June	PCC.III	Ottawa, Canada
	July		
	August		
	September		
	October		
	November	PCC.III	Guatemala, Guatemala
	December		
2002	January		
	February	PCC.III	TBD
	March		
	April		

	May		
	June	PCC.III	TBD
	July		
	August		
	September	PCC.III	TBD
	October		
	November	<i>CPM</i>	<i>Geneva, Switzerland</i>
	December		
2003	January	PCC.III	TBD
	February		
	March		
	April	PCC.III	TBD
	May		
	June	<i>WRC-2003</i>	TBD
	July		
	August		
	September		
	October		
	November		
	December		

III. RECOMMENDATIONS

PCC. III/REC. 62 (XVIII-01)⁸

FACILITATING THE INTRODUCTION OF BROADBAND FSS KA-BAND SYSTEMS IN THE AMERICAS

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications,

CONSIDERING:

- a) That the 17.7-20.2 GHz (space-to-Earth) and 27.5-30.0 GHz bands (Earth-to-space) are allocated to the FSS in Region 2 in the ITU Radio Regulations;
- b) That portions of these bands are planned for provision of broadband services by FSS networks to ubiquitously deployed terminals;
- c) That, due to the wide available bandwidths, these bands are ideal for the provision of broadband services by FSS networks;
- d) That there are steps that CITEL administrations could take to facilitate the introduction of broadband FSS Ka-band services to the Americas;
- e) That a number of FSS systems with other types of earth stations and characteristics have already been brought into use or are planned to be brought into use in portions of the bands referred to in considering a), including some that use the band 17.8-20.2 GHz (space-to-Earth);
- f) That sharing between satellite and terrestrial services is more difficult when at least one of the services utilizes densely deployed user terminals;
- g) That in certain portions of the bands referred to in considering a) above, it is useful to promote the ubiquitous deployment of FSS Ka-band earth stations through class licensing, in order to ensure rapid and effective provision of broadband services to all peoples of the Americas, and
- h) That a “class” earth station license is a single authorization covering a large number of earth stations associated with a given satellite system;

RECOGNIZING:

- a) That countries have the autonomy and sovereignty to regulate the commercial operation and use of telecommunications services and technologies in their territories, and
- b) That implementation of class licensing procedures does not eliminate the need for satellite network coordination in accordance with the ITU Radio Regulations, or compliance with

⁸ Document PCC.III/doc.1993/01

other provisions of the Radio Regulations (e.g., epfd limits in Article S22) and the procedures for ITU coordination, and for those Administrations that require coordination at the national level, are conducted directly by Administrations,

RECOMMENDS:

1. That, in portions of the frequency bands 17.7-20.2 GHz (space-to-Earth) and 27.5-30.0 GHz (Earth-to-space), CITEL administrations consider implementing national provisions and procedures to facilitate the implementation of Ka-Band FSS systems intending to provide broadband services to ubiquitously deployed terminals;
2. That, in the portions of the bands referred to in considering a) where there is a co-primary allocation to FSS and terrestrial services, administrations examine the impact of implementing terrestrial and satellite services in the same frequency band on the ability to provide satellite broadband services to the public;
3. That administrations identify the 19.7-20.2 GHz (space-to-Earth) and 29.5-30.0 GHz (Earth-to-space) bands, which are not shared with terrestrial services, for ubiquitous deployment of FSS earth stations, and develop national provisions and procedures for class licensing of earth stations;
4. That in the development of the national provisions described in recommends 3, earth station technical parameters be considered to avoid unacceptable interference between different satellite systems and their ubiquitously deployed FSS earth stations;
5. That in developing these national provisions and procedures, administrations take into account existing and planned FSS systems with different types of earth stations and characteristics, where national class licensing provisions and procedures would not be applicable.

PCC.III/REC. 63 (XVIII-01)⁹
INTERNET BY SATELLITE

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications,

CONSIDERING:

- a) That the Internet has become the world's fastest growing electronic communication service;
- b) The results of the Third Summit of the Americas (Quebec, Canada) as they relate to telecommunications, in particular the declaration on "Connecting the Americas" and the mandate for creation of the "Institute for connectivity in the Americas";
- c) That Internet use is increasing today throughout the Region of the Americas;
- d) That the majority of the member countries of CITELE have included the provision of Internet services within their development plans in order to meet the needs of their populations;
- e) That it is currently necessary to enhance existing infrastructure in order to provide additional Internet services in disadvantaged as well as other areas, and
- f) That satellites are an important means that may be used to meet Internet needs,

RECOMMENDS:

That CITELE administrations consider appropriate regulations to facilitate the provision of broadband services via satellite for, among other things, access to the Internet, including use of Internet Protocol (IP).

INSTRUCTS THE EXECUTIVE SECRETARY:

To transmit the present recommendation to the Chair of PCC.I in order that he makes it known to the participants of the Committee.

⁹ Document PCC.III/doc.1952/01 rev.2

IV. DECISIONS

PCC. III/DEC. 39 (XVIII-01)¹⁰

INCLUSION OF RESOLUTIONS, RECOMMENDATIONS AND DECISIONS IN CITEL'S WEB PAGE ON VSAT NETWORKS

The XVIII Meeting of Permanent Consultative Committee III: Radiocommunications,

DECIDES:

1. To include in the CITEL Web page on VSAT networks all applicable resolutions, recommendations and decisions prepared by PCC.III and relating to this topic, for the information and guidance of the Member States of CITEL.
2. To request that the Executive Secretary report progress made on the VSAT network Web page at the XIX Meeting of PCC.III.

PCC.III/DEC. 40(XVIII-01)¹¹

3G BACKHAUL INFRASTRUCTURE

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications,

DECIDES:

1. To request from the Member States views for the XIX meeting of PCC.III on the need to identify fixed service frequency bands that can be used for backhaul in support of the rapid deployment of 3G wireless telecommunication networks and bearing in mind the information contained in the Annex.
2. To instruct the Executive Secretary to distribute this decision to the Member States.

¹⁰ Document PCC.III/doc.1951/01 rev.1

¹¹ Document PCC.III/doc.1986/01 cor.1

ANNEX

3G BACKHAUL INFRASTRUCTURE

Low/medium capacity microwave facilities at various frequencies are currently used for fixed services, which can support backhaul applications for 1G and 2G cellular systems. In many CITELE countries, wide-scale deployment of 3G technologies will start within 2-3 years and extend over at least the next 10 years. In the near term, there is likely to be a substantial demand for new infrastructure, including new backhaul facilities, to support the initial deployment of new base stations. This backhaul may use fiber or wireless facilities.

It is therefore timely for PCC.III to consider which fixed service bands should potentially provide support for wireless backhaul applications with a view to harmonization within CITELE countries and resulting economies of scale. Due to spectrum exhaustion at lower bands and due to 3G systems offering higher bit rate services than 1G or 2G systems, it is likely that new backhaul applications will use fixed service bands above 10 GHz.

It is noted that ITU-R WP-9B is looking into this fixed service issue and is developing a document as the basis of a PDNR [9B/IMT-2000] "Consideration of fixed service spectrum requirements in deployment scenario of IMT-2000 infrastructure networks". The current version of this draft report is contained within the March 2001 Meeting Report of WP-9B (doc 9B/84, attachment 9B/TEMP/45, 12-20 March 2001). An extract from this TEMP document indicates the fixed service bands being considered for backhaul applications.

It is obvious that in the transport network part of IMT-2000 infrastructure where no fibre optics are available classical long haul bands below about 13 GHz might become essential. Beside other bands, such as 18 GHz and 23 GHz the HDFS bands (i.e. 32 GHz, 38 GHz and 52 GHz), especially for the UMTS-base station access will become vital.

In addition, in Region 2, it can be expected that operators of low/medium capacity fixed services in the 15 GHz band and 28 GHz band may also be used for this backhaul infrastructure applications. In some locations (e.g., remote areas), the microwave infrastructure may support traffic from multiple 3G operators.

Therefore, CITELE Administrations should provide PCC.III with their experience and proposals for fixed services facilities, particularly in terms of suitable frequency bands for that purpose, which can support 3G backhaul applications with a view to possible harmonization on the use of such facilities within CITELE administrations. This should facilitate the rapid deployment of 3G in Region 2.

A number of bands above 10 GHz are available for use by fixed services. For example, any of the following bands or parts thereof could support 3G backhaul applications taking into consideration sharing requirements with other services:

10.7 – 11.7 GHz, 14.5 – 15.35 GHz, 17.7 – 19.7 GHz, 21.2 - 23.6 GHz, 24.25 – 24.45 GHz, 25.05 – 25.25 GHz, 25.35 – 28.35 GHz, 31.8 – 33.4 GHz, 38.6 – 40.0 GHz, and 59 - 64 GHz.

PCC.III/DEC. 41 (XVIII-01)¹²

CONSIDERATION OF SPECTRUM ARRANGEMENTS FOR 3G

The XVIII Meeting of Permanent Consultative Committee III: Radiocommunications,

DECIDES

1. To request from the Member States views for the XIX meeting of PCC.III on the following Annexes:
 - Annex A: Draft Recommendation PCC.III/REC.xx (XVIII-01) “Spectrum Arrangements for 3G”.
 - Annex B: PCC.III/doc 1842/01 rev.1 cor.1 “Working Document on Frequency Arrangements for 3G Systems”.

2. To instruct the Executive Secretary to distribute this decision to the Member States.

¹² Document PCC.III/doc.1992/01

ANNEX A
Draft Recommendation
PCC.III/REC.XX (XVIII-01)
Spectrum Arrangements for 3G

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications,

CONSIDERING:

In order to determine the principles and practical use of the spectrum for 3G systems, it is considered:

- a) That the ITU Radio Regulations identify the bands 806-960 MHz, 1 710-1 885 MHz, 1 885-2 025 MHz, 2 110-2 200 MHz and 2 500-2 690 MHz as intended for use on a worldwide basis by administrations wishing to implement 3G;
- b) That CITELE Recommendation PCC.III/Rec.12 (III-95) "Designation of Spectrum for Personal Communications Systems in the Americas in the 2GHz Band" recommends that "PCS systems consider strategies for the evolution towards 3G";
- c) That 3G represents an opportunity for a major improvement in mobile or portable communication services for individuals or businesses which would be integrated into a variety of competing networks;
- d) That spectrum arrangements should be defined which are technology neutral i.e. any of the proposed 3G technologies can be used in these bands;
- e) That the bands identified for 3G should be considered on a global basis as a set, to achieve a comprehensive, global solution that will ensure that there is an approach that meets all requirements and that a significant level of interoperability is achieved;
- f) That Administrations should harmonize frequency arrangements to the greatest extent possible to facilitate worldwide compatibility, global roaming and create economies of scale;
- g) That evolution from pre-3G systems to 3G is enabled by providing compatible frequency arrangements thus leading to flexible regulatory approach;
- h) That indication of mobile transmit or base transmit operation does not preclude the use of these frequency bands for TDD applications, and
- i) That the 3G identified bands are shared on a co-primary basis with other Services, which should be protected accordingly,

RECOGNIZING:

That some countries may wish to include as an option 1710-1755 MHz / 2110-2155 MHz or parts thereof,

RECOMMENDS:

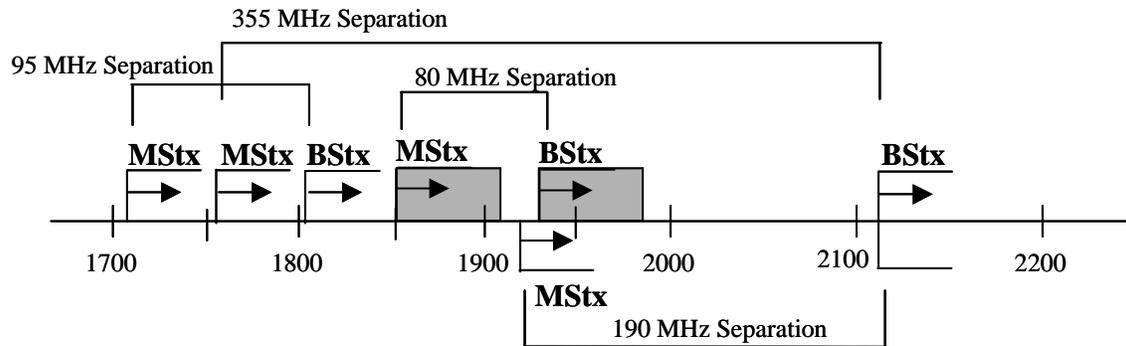
1. That CITEL Administrations to the extent possible should identify spectrum for 3G mobile systems based on the following three principles:
 - a) Maximize harmonization of the IMT-2000 identified bands with existing 2G and 3G band plan pairings for implementation of 3G services;
 - b) Maximize the use of the entire 1710-1850 MHz band ;
 - c) Maximize harmonization with the global 2110-2170 MHz Base Transmit Band.
2. That for the purpose of economies of scale, and roaming, it is highly desirable that global bands and pairings are harmonized. For Administrations wishing to implement only part of a band, the channel pairing should be consistent with the duplex frequency separations of the full band plan.
3. That CITEL Administrations to the extent possible should select from the following Spectrum band pairing options.

Recommended Spectrum Band Pairing Options

Figure 1 shows the recommended spectrum band pairing options.

1. Mobile transmit band starting at 1710 MHz, paired with a base transmit band starting at 1805 MHz, consistent with a duplex separation of 95 MHz (aligned with DCS1800 bandplan), (see Figure 1).
2. Mobile transmit band starting at 1755 MHz¹³, paired with the global base transmit band starting at 2110 MHz, consistent with a 355 MHz duplex separation, (see Figure 1).
3. Mobile transmit band starting at 1920 MHz, paired with the global base transmit band starting at 2110 MHz, consistent with a 190 MHz duplex separation, (see Figure 1) - some countries may wish to implement part of the band.
4. Mobile transmit band starting at 824 MHz, paired with a base transmit band starting at 869 MHz, consistent with a duplex separation of 45 MHz.
5. Mobile transmit band starting at 1850 MHz, paired with a base transmit band starting at 1930 MHz, consistent with a duplex separation of 80 MHz.

¹³ The precise band edge of 1755 MHz is under discussion in some CITEL Administrations



MStx = Mobile station transmit band

BStx = Base station transmit band

■ = PCS band

Figure 1: Recommended Band Pairing Options

Annex B:

**XVII MEETING OF PERMANENT
CONSULTATIVE COMMITTEE III:
RADIOCOMMUNICATIONS
March 5-9, 2001
City of Panama, Panama**

**OEA/Ser.L/XVII.4.3
PCC.III/doc.1842 rev.1 cor.1
8 March 2001
Original: English**

**WORKING DOCUMENT ON FREQUENCY ARRANGEMENTS
FOR 3G SYSTEMS**

(Item on the Agenda: 4.3)

(Document submitted by: 3G Ad Hoc Drafting Group)

1. PURPOSE

The purpose of this document is to identify various options for frequency arrangements for 3G mobile systems under consideration by CITELE countries. This document is intended to form the basis for a future CITELE Recommendation on preferred frequency band plans for 3G mobile systems. This document also includes information of the existing 800 MHz cellular and 1900 MHz PCS bands for their evolution to their 3G systems. Administrations are encouraged to submit contributions regarding this document to the next meetings of CITELE.

2. INTRODUCTION

With the identification of bands for 3G mobile systems by WRC-00 and the activities of ITU-R WP 8F and the technology standards bodies 3GPP and 3GPP2, it is rapidly becoming important for CITELE to identify specific band plans for 3G systems.

Furthermore, worldwide harmonisation of frequency usage by the 3G systems would enhance global roaming and economies of scale. A key element in the success of 3G systems is the ability for the terminal equipment to operate and roam worldwide without any restriction.

Many administrations are proceeding expeditiously with the identification of the spectrum and band plans for third generation wireless, including IMT-2000 which will best meet their domestic requirements. A number of Region 2 countries have begun their consultation processes, aimed at the adoption of harmonized band plans this year or early next year, leading to licensing within the next two years.

The working group on terrestrial fixed and mobile radiocommunication services of the Permanent Consultative Committee III held an extraordinary meeting on October 2 and 3, 2000, with the purpose of identifying and elaborating common proposals among the CITELE Administrations to be presented in the third WP-8F meeting. The proposals were not considered CITELE proposals and they were submitted to WP-8F directly by the Administrations which undersigned them.

During the aforementioned meeting three proposals of possible frequency arrangements in the spectrum identified by WARC-92 and WRC-2000 for IMT-2000 were identified. Brazil, Chile, Colombia, Guatemala, Mexico, United States of America and Venezuela, supported a frequency arrangement for the 824 MHz to 894 MHz bands (see section 3.3). Chile, Mexico and the United States of America, proposed a frequency arrangement example for the 1.850 MHz to 1.990 MHz bands (see section 3.2). Brazil, Chile, Guatemala, Mexico and Venezuela, supported a frequency arrangement using 1.7 GHz and 1.9 GHz bands for the IMT 2000 reverse link paired with 2110 MHz to 2170 MHz for the forward link (see section 3.1.3).

1. FREQUENCY ARRANGEMENTS for 3G MOBILE SYSTEM

3.1 Frequency Arrangements in the 1710-2170 MHz range

In the options 1, 2, and 3, provided below, the frequency ranges considered are 1710-1850 MHz and 2110-2170 MHz. In addition, in options 1 and 3, parts of the PCS band in the range 1920-1980 MHz are also included. It is noted that in these three options, the entire 1710-1850 MHz is used in various pairing scenarios. In order to maximize the use of available spectrum and provide flexibility, these scenarios include pairing of spectrum both within the 1710-1850 MHz and also with parts of 2110-2170 MHz.

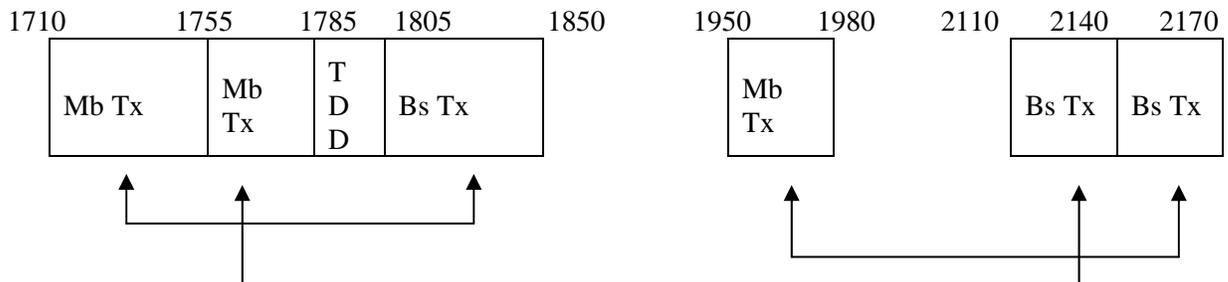
All of these options take into consideration existing and future band plans used in other Regions in order to maximize harmonization.

3.1.1 Option 1

The plan illustrated below, submitted by Brazil, could be an alternative for countries which have available, a portion of the band identified by WRC-92, as well as the 1.8 GHz band identified by WRC-2000.

In the case of most Region 2 countries, this proposal could provide 120 MHz of spectrum, in the short term for the IMT-2000, and allow 90 MHz of spectrum for evolution from 2nd generation to IMT-2000 systems.

The following figure illustrates the band 1710-1755 MHz paired with 1805-1850 MHz, and the band 2110-2170 MHz combined with 1950-1980 MHz and 1755-1785 MHz.



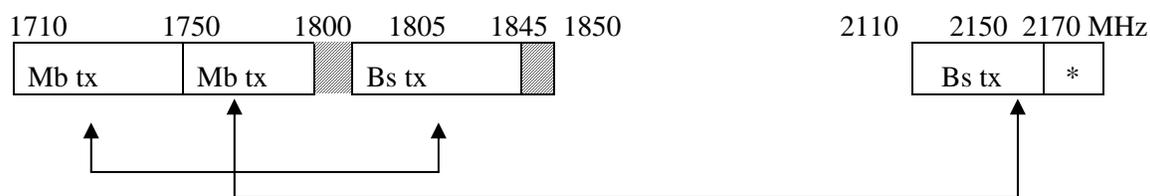
The plan illustrated above has the following advantages:

- i) Provides up to 210 MHz of spectrum for IMT-2000.
- ii) Facilitates a global harmonization in the spectrum bands identified for IMT-2000, supporting therefore, global roaming and economies of scale by:
 - Facilitating the evolution of pre-IMT-2000 to IMT-2000 systems, with the pairing of 1710-1755/1805-1850 MHz;
 - Using a common base transmit band already adopted by other Regions, with the pairing of 1755-1785/2110-2140 MHz;
 - Using a common base and mobile transmit bands already adopted by other Regions with the pairing of 1950-1980/2140-2170 MHz.
- iii) Could allow the use of the unpaired spectrum for TDD applications.
- iv) Facilitates flexibility and step by step implementation.
- v) The possible use of the middle part of the band for Mb Tx (1755-1785 MHz) would be compatible with the possible frequency arrangements proposed in the ITU-R WP-8F by countries of other Regions.

However, the plan illustrated in this option does not take into consideration the necessary guard bands.

3.1.2 Option 2

The frequency arrangement shown below, was developed by Canada through substantive consultation with their mobile industry. It takes into consideration a 5 MHz guard band between 1 800-1 805 MHz and 1 845 - 1 850 MHz, as suggested in document PCC.III/doc.1788/01.



* In Canada, the band 2 150 – 2 160 MHz is used by MCS and MDS services.

The band 2 160-2 170 MHz is allocated to MSS, in Region 2 (S5.388, S5.389C, S5.389D).

The plan illustrated above can maximize the use of the 1.7 GHz band. Domestic implementation can vary to balance the spectrum requirements of incumbent and new users and services. With symmetrically paired spectrum in the range 2110-2170 MHz, this provides up to 180 MHz of spectrum, which meets the requirement (160 MHz) identified by the ITU.

This frequency arrangement is aligned with proposals from several Region 2 countries, as reflected in Document 8F/184, Attachment 6, Annex 3. The rationale for this arrangement is that it provides commonalities in band plans with other Regions:

- the 1710-1750/1805-1845 MHz pairing is in alignment with the evolution from 2G to 3G technology of the band, in some Regions;
- the 1750-1800/2110-2160 MHz pairing uses a common base transmit band to the band plans used in other Regions.

This combination strives towards global harmonization of existing bands, leading to economies of scale and roaming capabilities. It will also facilitate the evolution of pre-IMT systems into IMT-2000 systems and networks in the 1710 -1845 MHz band.

Within guard bands, the use of low power TDD could be investigated, as it would increase the total amount of spectrum available for advanced mobile services including 3G, and provides an additional means of addressing traffic asymmetry.

3.1.3 Option 3

It was identified that a frequency arrangement using the 1.7 GHz and 1.9 GHz bands for IMT-2000 reverse link paired with the 2110 MHz to 2170 MHz band for forward link, could be an alternative for Administrations that belong to Region 2.

However, various Administrations of Region 2 present some differences in the deployment of existing systems using the frequency range of 1710 MHz to 1850 MHz. On the other hand, it was identified that 2110 MHz to 2170 MHz can be used in part or entirely with no major problems, in many CITELE countries.

For these reasons the ITU Administrations that support this contribution uphold the view that the best way to provide the necessary flexibility would be to consider all bands from 1710-1850 MHz to be used as a reversed link. To accommodate possible differences among Administrations, frequency usage should be solved through technological resources . Bearing this in mind, the alternative that takes into consideration the use of variable duplex separation technology optimises the use of RF spectrum for IMT-2000 and draws near the goal of global harmonisation.

However, the Administrations that subscribed to this proposal recognised that the commercial availability of variable duplex separation technology is not clearly defined yet. As such, a transitional step must be considered in order to develop in a very short term, terminals for IMT – 2000 operating in the two bands mentioned below for reverse link, paired with 2110-2170 MHz for forward link with fixed duplex separation. The two bands for reverse link would be 1920 MHz to 1980 MHz and any (up to) 60 MHz in the band 1710 – 1850 MHz.

Figure 1 illustrates this alternative.

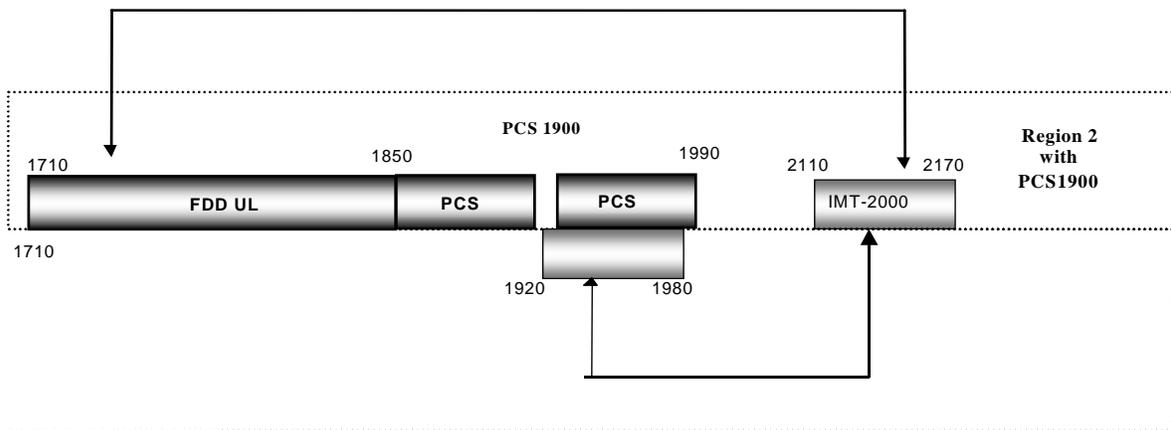


Figure 1

This initial pairing of one part (up to 60 MHz) of the 1710-1850 MHz and 2110-2170 MHz bands offers an opportunity for those administrations that have chosen to implement second generation systems in the original IMT-2000 band, to develop a national plan for bands that is in accordance with international allocations. In addition, this pairing of bands takes into account:

- The capacity of the band 2110 - 2170 MHz to serve as a downward link in the three Regions of the world, and as such, to support global roaming in the three Regions.
- Facilitates the development and production of terminal stations that are cost-effective and that simplify arrangement of duplex frequencies.
- This example of frequency arrangement is basically compatible with the spectrum available in Region 2 and will depend on the availability in each country.
- This frequency arrangement neither limits nor favours the deployment of certain IMT-2000 technologies.
- This arrangement facilitates a step-by-step approach that will allow existing second generation systems to continue operating, as needed, in their current bands, i.e. the 1.9 GHz band.
- Some administrations in Region 2 are still studying the definition of the use of these frequency bands as an additional alternative in offering third generation services.

Such an approach may accommodate the spectrum needs of new operators, as well as of existing operators, and will allow the co-existence between 3G systems and current services.

Since the first phase of this proposal does not entirely cover the approximate 160 MHz of additional spectrum that, as recognized by the administrations of WRC-2000, it will be necessary to satisfy the predicted demand for short-term 3G spectrum, and in order to consider all bands above 1 GHz together, it is important that the administrations and manufacturers concentrate their efforts in order to make the variable duplex separation technology become a reality.

Advantages

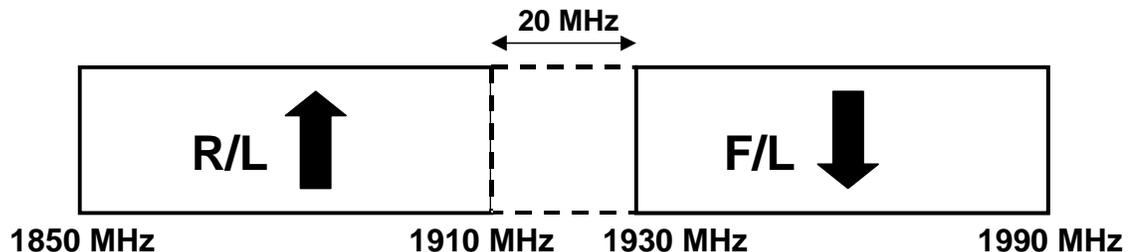
1. A near-term solution for 3G spectrum in the countries that have chosen to implement second generation PCS systems in the bands identified for IMT-2000 by WARC-92.
2. Facilitates a global frequency arrangement in the spectrum bands identified for IMT-2000, supporting, therefore, global roaming and economies of scale.
3. Facilitates flexibility and step-by-step implementation.
4. Offers a clear regulatory framework which allows near-term implementation and development of the IMT-2000 systems.
5. Allows, furthermore, definition of certain TDD blocks in the band 1710 – 1850 MHz.
6. The implementation of variable duplex separation technology, when available, would facilitate the harmonised use of the frequency bands, identified for IMT-2000, by the administrations of Regions 1, 2 and 3.

Disadvantages

1. The asymmetric capacity is at first limited.
2. The example of frequency arrangements for Region 2 is not completely aligned with Regions 1 and 3.
3. The example of frequency arrangements does not cover the approximate 160 MHz of additional spectrum that the administrations identified at WRC-2000.

3.2 Use of the PCS Bands for 3G Mobile Systems

There are countries in Region 2 that anticipate that the introduction of IMT-2000 in their countries will first occur in bands where cellular and personal communications services (PCS) currently operate. However, many of these countries have not yet made decisions regarding the implementation of IMT-2000 in bands other than those currently used for PCS systems. As an initial step in implementing IMT-2000, this contribution proposes continued use of the frequency bands 1 850-1 910 MHz/1 930-1 990 MHz and evolution of second generation systems using these bands to IMT-2000. These frequencies fall within the bands identified by WARC-92 and WRC-2000 for IMT-2000. The following chart provides the broadband PCS band plan implemented in Region 2.



Some of the first operators to provide services using IMT-2000 will be current and new operators in the PCS bands. These operators are expected to begin providing these services in early 2001 in response to their customers' need for access to new service features and capabilities.

To promote the continued growth of IMT-2000, it is essential that the Recommendations on frequency arrangements for IMT-2000 include those used by existing second generation mobile systems that allow operators to transition easily, within their current licensed frequencies, to IMT-2000. IMT-2000 has evolved from existing technologies in response to market demand, allowing current operators and new licensees in existing mobile bands to bring advanced services to consumers as rapidly as new technology allows.

Although the ITU plays an invaluable role in facilitating IMT-2000, it will be administrations, technology developers, equipment manufacturers and service providers that will ultimately decide when to introduce IMT-2000 based on market factors. Support for an evolutionary approach in existing mobile bands was included in Resolution 223 (WRC-2000) and Resolution 224 (WRC-2000), recognizing the use of these frequency arrangements may lead to a more expeditious implementation of IMT-2000.

The ITU's recognition of the PCS frequency band as one of the IMT-2000 frequency band arrangements will advance roaming of newly implemented IMT-2000 in much of the Americas and will further encourage the development of handsets to support global roaming among the frequency arrangements that are being implemented for IMT-2000.

Advantages

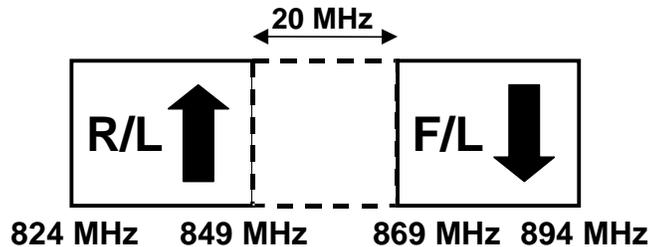
- 1) Utilizing the 1 850-1 910 MHz / 1 930-1 990 MHz frequency bands for IMT-2000 will permit these operators to migrate their current systems to IMT-2000 within their existing allocations, maintaining current reverse- and forward-link bands and duplex spacing.
- 2) This approach has the advantage of not artificially tying the rollout of new technology and services to new spectrum as administrations assess their ability to allocate additional spectrum for IMT-2000 from within the bands identified at WARC-92 and WRC-2000.

Disadvantages

The 1 850-1 910 MHz / 1 930-1 990 MHz frequency bands are not used on global basis for PCS. While the use of multi-band terminals can facilitate global roaming in these bands, there are disadvantages to this approach, including higher terminal costs.

3.3 Use of the Existing Cellular Bands (824-849 MHz / 869-894 MHz) for 3G Systems

There are countries in Region 2 that anticipate that the introduction of IMT-2000 in their countries will first occur in bands where cellular and personal communications services (PCS) currently operate. However, many of these countries have not yet made decisions regarding the implementation of IMT-2000 in bands other than those currently used for cellular systems. As an initial step in implementing IMT-2000, this contribution proposes continued use of the frequency bands 824-849 MHz / 869-894 MHz and evolution of first and second generation systems using these bands to IMT-2000. These frequencies fall within the bands identified by WRC-2000 for IMT-2000. The following chart provides the cellular band plan implemented in Region 2.



Some of the first operators to provide services using IMT-2000 will be current and new operators in the cellular bands. These operators are expected to begin providing these services in early 2001 in response to their customers' need for access to new service features and capabilities.

To promote the continued growth of IMT-2000, it is essential that the Recommendations on frequency arrangements for IMT-2000 include those used by existing first and second generation mobile systems that allow operators to transition easily, within their current licensed frequencies, from analog and digital wireless systems to IMT-2000. IMT-2000 has evolved from existing technologies in response to market demand, allowing current operators and new licensees in existing mobile bands to bring advanced services to consumers as rapidly as new technology allows.

Although the ITU plays an invaluable role in facilitating IMT-2000, it will be administrations, technology developers, equipment manufacturers and service providers that will ultimately decide when to introduce IMT-2000 based on market factors. Support for an evolutionary approach in existing mobile bands was included in Resolution 223 (WRC-2000) and Resolution 224 (WRC-2000), recognizing the use of these frequency arrangements may lead to a more expeditious implementation of IMT-2000.

The ITU's recognition of the cellular frequency band as one of the IMT-2000 frequency band arrangements will advance roaming of newly implemented IMT-2000 in much of the Americas and will further encourage the development of handsets to support global roaming among the frequency arrangements that are being implemented for IMT-2000.

Advantages

- 1) Utilizing the 824-849 MHz / 869-894 frequency bands for IMT-2000 will permit these operators to migrate their current systems to IMT-2000 within their existing allocations, maintaining current reverse- and forward-link bands and duplex spacing.
- 2) This approach has the advantage of not artificially tying the rollout of new technology and services to new spectrum as administrations assess their ability to allocate additional spectrum for IMT-2000 from within the bands identified at WARC-92 and WRC-2000.

Disadvantages

The 824-849 MHz / 869-894 frequency bands are not used on global basis for cellular services. While the use of multi-band terminals can facilitate global roaming in these bands, there are disadvantages to this approach, including higher terminal costs.

3.4 Options being considered in the United States

The U.S. FCC has sought comment in a Notice of Proposed Rule Making on the following options for IMT-2000 band plans. The U.S.A. will make its decision on these or other options after considering all of the comments received in accordance with U.S. law.

3.4.1. Option 1

An option (“Option 1”) for advanced mobile and fixed communications systems is our proposal in the *Policy Statement*; *i.e.*, allocating the 1 710-1 755 MHz band paired with the 2 110-2 150/2 160-2 165 MHz band. A variation of this option could be to make spectrum available in phases in the 1 710-1 790 MHz band (similar to the second segmentation option discussed in the NTIA Interim Report), paired with additional spectrum above 2 110 MHz. This option would be consistent with the proposal recently made to ITU-R Working Party 8F by Brazil, Chile, Guatemala, Mexico, and Venezuela that Region 2 countries use for 3G systems spectrum in part of the 1 710-1 850 MHz band (up to 60 megahertz) for mobile-to-base operations paired with spectrum in the 2 110-2 170 MHz band for base-to-mobile operations.¹⁴ As these countries note, this approach could permit compatible base-to-mobile use of the 2 110-2 170 MHz band among Region 2 and non-Region 2 countries to support global roaming.¹⁵ Accordingly, Option 1 could make available up to 90 megahertz of spectrum for advanced mobile and fixed communications systems and could also promote compatibility in the upper band. We note, however, that compatibility with non-Region 2 countries would not occur in the lower band if non-Region 2 countries use bands other than 1 710-1 755 MHz for 3G mobile-to-base operations.

3.4.2. Option 2

A second option (“Option 2”) for accommodating advanced mobile and fixed communications systems is allocating the 1 710-1 755 MHz band paired with spectrum in the 1 755-1 850 MHz Federal Government band. As detailed in its Interim Report, NTIA has expressed serious reservations about using the 1 755-1 850 MHz band for non-Federal systems because of that band’s use by critical Government systems. However, if NTIA were to make spectrum in that band available, it could be paired with the 1 710-1 755 MHz band on either a symmetrical or asymmetrical basis. The NTIA Interim Report suggests various band segmentation plans that could make 45 megahertz or more of spectrum available for advanced mobile and fixed communications systems.¹⁶ A symmetrical pairing might permit the 1 805-1 850 MHz band to be paired with the 1 710-1 755 MHz band, whereas an asymmetrical pairing would permit a larger block of spectrum in the 1 755-1 850 MHz band to be paired with the 1 710-1 755 MHz band. Option 2 would also have the potential advantage of permitting compatible Region 2/non-Region 2 use of the 1 710-1 755 MHz and 1 805-1 850 MHz bands because these bands are used in much of Europe for second generation GSM mobile radio systems. However, a disadvantage of Option 2 is that it is unclear whether

14 See ITU-R Document 8F/148-E, “Possible Frequency Arrangements in the Spectrum Identified by WARC-92 and WRC-2000 for IMT-2000,” October 20, 2000.

15 *Id.* at 2-3.

16 See NTIA Interim Report at 38-46.

European countries will transition these bands to 3G systems. A further disadvantage of Option 2 is that even if spectrum in the 1 755-1 850 MHz band is reallocated for non-Federal use, Federal satellite systems may continue to operate in that band on a grandfathered basis for a number of years in a manner that would limit the use of this band for advanced services.

3.4.3. Option 3

A third option (“Option 3”) for accommodating advanced mobile and fixed communications systems is allocating the 2 110-2 150/2 160-2 165 MHz bands paired with spectrum in the 2 500-2 690 MHz band. Alternatively, the 1 710-1 755 MHz band could be paired with spectrum in the 2 500-2 690 MHz band. Option 3 would also permit either symmetrical or asymmetrical pairing. The potential advantage of this approach is that both the 2 110-2 150/2 160-2 165 MHz and the 2 500-2 690 MHz bands are available for 3G systems in many countries. Accordingly, Option 3 could directly permit 3G compatibility without concern as to whether 2G systems will be transitioned to 3G systems. However, a disadvantage of Option 3 is that it would require reallocation of ITFS/MMDS spectrum in the 2 500-2 690 MHz band, which could adversely impact broadband fixed use of that band, as detailed in the FCC Interim Report. A further disadvantage of Option 3 is that, while the 2 500-2 690 MHz band is potentially available for 3G systems in other countries, it remains unclear how many of these countries will actually use that band for such systems.

PCC.III/DEC.42 (XVIII-01)¹⁷

CONCLUSION OF THE AD HOC GROUP TO EXAMINE THE PROCEDURE FOR PRESENTATION OF JOINT PROPOSALS TO ITU-R

The XVIII Meeting of the Permanent Consultative Committee III: Radiocommunications,

DECIDES:

1. To conclude the work of the Ad Hoc Group to examine the procedure for presentation of joint proposals to ITU-R.
2. To instruct the Executive Secretary to send, in the name of PCC.III, a letter to the Administration of Uruguay in which he communicates CITELE’s appreciation of the work of Mr. Héctor Budé in leading CITELE’s efforts to examine a procedure for presenting joint proposals to ITU-R.

¹⁷ Document PCC.III/doc.1990/01

PCC.III/DEC. 43 (XVIII-01)¹⁸

PREPARATIONS FOR WTDC-02

The XVIII Meeting of Permanent Consultative Committee III: Radiocommunications,

DECIDES:

1. To inform CITELE Member States of the importance of their participation in upcoming events in the Region, relating to the WTDC, as follows:

20 – 22 August 2001: Meeting of the COM/CITEL Working Group to prepare CITELE for the Plenipotentiary Conference and the 2002 World Telecommunications Development Conference of the ITU, Washington, D.C., United States of America.

15 October 2001: Meeting of the COM/CITEL Working Group to prepare CITELE for the Plenipotentiary Conference and the 2002 World Telecommunications Development Conference of the ITU. Trinidad and Tobago (to be confirmed).

16 – 18 October 2001: Regional Preparatory Meeting for WTDC-02 for the Americas. Trinidad and Tobago.

10 – 14 December 2001: Meeting of the COM/CITEL Working Group to prepare CITELE for the Plenipotentiary Conference and the 2002 World Telecommunications Development Conference of the ITU. Ecuador.

2. To request Member States to respond in as timely a manner as possible to the ITU questionnaire on priority issues for the Region, whose deadline for submission is 31 July 2001 and which can be found in document PCC.III/doc.1950/01.
3. To request Member States and PCC.III Associate Members to send their opinions on matters they consider to be priorities for the Region to the Chair of the Ad Hoc Group on preparations for WTDC-02, Mr. Héctor Hugo Huerta Reyna (hhuerta@cft.gob.mx), by 30 July 2001.
4. To request that Member States in drawing up their considerations take into account the following themes which have initially been considered priorities for PCC.III [reference resolution COM/CITEL.RES.103 (IX-00)]:
 - i. Preparation of plans for development of telecommunications in rural and in urban low-income areas.
 - ii. Development of human resources.
 - iii. Administration of the radio spectrum
 - iv. Methodology for development of a global interconnection.

¹⁸ Document PCC.III/doc.1991/01 rev.1.

- v. Regional integration through identification of projects.
- vi. To promote and coordinate modernization of telecommunications infrastructure based on the introduction of new technologies, especially broadband technologies, mobile third generation telecommunications, new television broadcasting standards and the IP protocol.
- vii. Use of telecommunications for preservation of human life and public safety in cases of natural disaster.

Additionally, other themes have been identified that might be priorities for PCC.III, including the following:

- i. Strengthening regional and sub-regional preparatory meetings for the World Telecommunication Development Conferences.
 - ii. Coordinated development of IMT-2000 for the region of the Americas.
 - iii. Development of a regional website containing regulatory aspects of satellite communication services.
5. To request the Chair of the Ad Hoc Group for preparations for WTDC-02 to compile and present a preliminary report at the Meeting of the COM/CITEL Working Group to prepare CITEL for the Plenipotentiary Conference and the 2002 World Telecommunications Development Conference of the ITU, to be held in August in Washington, D.C. Subsequently, the President of the Ad Hoc Working Group will send PCC.III Members a report on the results of the August meeting and will request additional comments, which he will include in his report to the XIX Meeting of PCC.III.
6. To instruct the Executive Secretary to distribute this decision to the Member States.

PCC.III/DEC. 44 (XVIII-01)¹⁹

**METHODS TO FACILITATE MIGRATION OF EXISTING
RADIOCOMMUNICATIONS SYSTEMS TO MAKE SPECTRUM AVAILABLE
TO NEW RADIOCOMMUNICATIONS SYSTEMS**

The XVIII Meeting of Permanent Consultative Committee III: Radiocommunications,

DECIDES:

1. To request Member States, that in accordance with the terms of reference included in resolution COM/CITEL/RES.116 (XVIII-01) to present contributions regarding methods they employ for migration of existing radiocommunications systems, with the purpose of making spectrum available to new radiocommunications systems.
2. To instruct the Executive Secretary to distribute this decision to the Member States.

V. LIST OF BASIC DOCUMENTS

Summary Minutes of the Inaugural Session and the First Plenary Session:	PCC.III/doc.1963/01 rev.1
Summary Minutes of the Second Plenary Session:	PCC.III/doc.1984/01 cor.1
Summary Minutes of the Third Plenary Session	PCC.III/doc.1994/01 rev.1
Summary Minutes of the Fourth Plenary Session and Closing Session:	PCC.III/doc.1995/01 cor.1
List of Documents:	PCC.III/doc.1866/01 rev.7
List of Participants:	PCC.III/doc.1867/01 rev.3
Final Report for the Meeting	PCC.III/doc.2001/01 rev.1

¹⁹ Document PCC.III/doc.1997 /01.