

**PCC.III/RES. 94 (XIII-99)<sup>1</sup>**

**DEVELOPMENT OF A CITEL PCC.III COMMON PROPOSAL INPUT  
DOCUMENT TO THE CPM IN NOVEMBER 1999, ON CHAPTER 1 – IMT-2000**

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

**CONSIDERING:**

- a) That the band 2700-2900 MHz has been designated as a candidate band for the implementation of the terrestrial component IMT-2000 in the CPM Report on Technical, Operational and Regulatory Procedural Matters to be Considered by the 2000 World Radiocommunication Conference;
- b) That the session of ITU-R Conference Preparatory Meeting will start on November 15, 1999, and it would be very much in the interests of the CITEL members to have common proposals on the text of the CPM on IMT-2000 and that these be examined in the framework of item 1.6 on the WRC-2000 Agenda;
- c) That, in accordance with resolution PCC.III/RES. 65 (X-98), it is possible to present common proposals to the ITU-R, as long as the procedure indicated in the Annex to that resolution are adopted;
- d) That further in keeping with PCC.III/RES. 65 (X-98), it is possible to send a proposal supported by five Administrations as a common proposal; and
- e) That one procedure contained in the aforesaid resolution consists in removing the square brackets around the names of member countries in the document containing the common proposal.

**RECOGNIZING:**

- a) That the band 2700-2900 MHz is allocated in the Radio Regulations to the aeronautical radionavigation Service on a primary basis and the radiolocation service on a secondary basis in all 3 ITU Regions;
- b) That ground based radars used for meteorological purposes are authorized to operate in this band on a basis of equality with stations in the aeronautical radionavigation service (S5.423);
- c) That the radionavigation service is a safety service as specified by No. S4.10 of the Radio Regulations and harmful interference to it cannot be accepted;
- d) That the utilization of this band in the Americas is primarily for Airport Surveillance Radars and Meteorological Radars; and

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<sup>1</sup> Reference document: PCC.III/doc.1435/99.

- e) That initial studies show that IMT-2000 systems and radar systems can not share spectrum on a co-channel, adjacent channel or band segmentation basis.

**RESOLVES:**

1. To request that Administrations study the Annex (Draft CPM text) of this Resolution;
2. To request the Administrations that disagree with any part of the text in the Annex to send their proposed modification by email to points of contact:

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And to the Chairman of the Working Group preparing for the WRC-2000:

Félix Castro  
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by October 13, 1999;

3. That the Points of Contact will consolidate all modifications and electronically distribute the modified proposal via the CITEL Electronic Forum and by email to Administrations providing comments by October 15;
4. That if there are no further modifications, the Points of Contact will submit the final proposal to the CITEL Secretariat by October 17;

**INSTRUCTS THE CITEL SECRETARIAT;**

To forward the consolidated Annex to the Member States, adding at the beginning of the annex, a list of their names in square brackets.

**URGES THE ADMINISTRATIONS:**

1. That agree with the final version of the Annex to inform the CITEL Secretariat by October 21, 1999, in order to have the square brackets removed from their names and to apply other relevant procedures set forth in Resolution PCC.III/RES. 65 (X-98).
2. To provide data regarding the use of this band in their countries, so that the points of contact can submit an information paper at the CPM meeting in Geneva. This information paper will also contain sharing studies information.
3. That are unable to reply by the dates listed above, may also sign on to this proposal at the CPM in Geneva in November 1999.

## **COMMON CITEL PROPOSALS FOR THE CONFERENCE PREPARATORY MEETING (CPM)**

### **TEXT MODIFICATIONS TO CHAPTER 1 OF THE DRAFT CONFERENCE PREPARATORY MEETING (CPM) TEXT**

#### **Submitted by the following Administrations:**

[Antigua and Barbuda], [Argentina], [Bahamas], [Barbados], [Belize], [Bolivia], [Brazil], [Canada], [Chile], [Colombia ], [Costa Rica], [Dominica], [Dominican Republic], [Ecuador] [El Salvador], [Grenada], [Guatemala], [Guyana], [Haiti], [Honduras], [Jamaica], [Mexico], [Nicaragua], [Panama], [Paraguay], [Peru], [Saint Lucia], [Saint Vincent and the Grenadines], [St. Kitts and Nevis], [Suriname], [Trinidad and Tobago], [United States], [Uruguay], [Venezuela]

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#### **Background Information:**

CITEL PCC.III having considered the status of the CPM text preparation on Chapter 1, WRC-2000 Agenda Item 1.6 on IMT-2000, has decided to send to the CPM a proposed modification to Sub-sections 1.1.1.3.1 and 1.1.1.3.2 of the draft CPM-99 report as indicated below. This modification was discussed and developed by CITEL PCC.III at its XIII meeting, 6-10 September, 1999 in Mexico City, Mexico.

#### **Proposal:**

##### **1.1 Agenda item 1.6**

##### **“Issues related to IMT-2000”**

MOD 1.1.1.3.1 Relevant ITU-R sharing studies

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Recommendations ITU-R M Series (Section 1.1.1.2 a)) contain technical and operational characteristics and protection criteria of radiodetermination systems for use when assessing the compatibility of these services with other services in frequency bands under consideration as candidate bands for IMT-2000 (Section 1.1.1.3.2). It is vital to note that the radionavigation service operating in these bands is a safety service as specified by RR No.S4.10 and provides a safety of life function, therefore requiring special measures to ensure their freedom from harmful interference. Appropriate technical and operational characteristics are required to determine the feasibility of introducing new types of systems or services in the bands between 420 MHz and 34 GHz, in particular the band 2700-2900 MHz that is currently an IMT-2000 candidate band, used by radionavigation and meteorological radars. Because the radiodetermination service and

meteorological ~~aids-services~~ radars perform indispensable functions and because their missions have requirements for large bandwidths in particular frequency bands, it is necessary to show by comprehensive studies that potential reallocations of radiodetermination and/or meteorological ~~aids~~ radar allocations will not erode their ability to perform their essential functions.

Given the technical characteristics of the radionavigation, radiolocation and meteorological radars (e.i.r.p. in the order of 1 GW in some systems and the trend towards high duty cycles) and the need to operate in accordance with the protection criteria contained in the Recommendations ITU-R M-series referenced in Section 1.1.1.2a), sharing with IMT-2000 systems is considered to be feasible only when explicitly confirmed by ITU-R sharing studies.

Some administrations conducted initial sharing studies between radars and IMT-2000 systems in the 2700-2900 MHz band, for their country, in accordance with ITU-R Draft New Recommendations M.[RAD.PROC]. [RADCHAR2], [IMT.RKEY] and [IMT:RSPC], and Recommendation ITU-R M.687. These initial studies place the usability of the band 2700-2900 MHz, by IMT-2000 systems, into question. Before this band is considered for IMT-2000, comprehensive ITU-R studies are required.

**Reasons:** The addition of a lead-in sentence clarifies that the information in the remainder of the paragraph is the subject of ITU-R recommendations and is not just relevant information. New information has become available on the results of initial sharing studies conducted by some Administrations. Other changes are editorial.

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#### MOD 1.1.1.3.2 Candidate bands for additional IMT-2000 terrestrial spectrum

Possible candidate bands for additional terrestrial IMT-2000 spectrum are given in Table 1-3 below.

Further information regarding the use of these bands (and others) may be found in Report ITU-R [IMT.SURVEY].

Table 1-3

**Possible candidate bands for the terrestrial component of IMT-2000**

<p>Frequency Band <b>2 700 - 2 900 MHz</b></p> <p>This band is allocated <del>on a</del> world-wide <u>on a primary basis</u> to the aeronautical radionavigation service. <del>There is a</del> <u>and on a secondary basis</u> <del>world wide allocation</del> to the radiolocation service. Meteorological <del>aids</del> <u>radars</u> can also operate in this band <u>with equality to the aeronautical radionavigation service</u>, based on RR No. S5.423.</p> <p><u>This band is used extensively for radar systems in some countries (aeronautical radio navigation systems and meteorological radars).</u></p> <p>Unlike other bands in this table, this band is not currently allocated to the mobile service. Since the radionavigation service is a safety service, the appropriate sharing studies and impact assessment would have to be undertaken to ensure the necessary protection to this service.</p> <p><del>This band is mainly used for radar systems (aeronautical radio navigation systems and MetAids).</del></p> <p><b>Advantages</b></p> <p>In some countries, a limited number of <u>radar</u> systems are deployed in this band and future <u>increased</u> usage is under consideration. <del>Therefore, where existing usage can be phased out or</del> <u>In countries where usage is limited and</u> geographical sharing with existing services is possible, this band could possibly be made available for IMT-2000.</p> <p><b>Disadvantages</b></p> <p>There is great uncertainty about the potential impact that IMT-2000 operations would have on the existing radionavigation <u>and meteorological</u> use of this band.</p> <p>A number of administrations have indicated that this band is the primary band for air traffic control and primary airport surveillance radars <u>as well as for meteorological radars</u>. <u>In some countries where usage is low, use for radionavigation and meteorological radars is expected to increase, making the band unavailable for IMT-2000 in those areas.</u></p> <p><u>Airport surveillance and meteorological radars operating in this band are typically located in or near densely populated areas, where IMT-2000 (terrestrial) spectrum is most needed, precluding geographical sharing within some countries. IMT-2000 use of this band would lead to spectrum that is not globally available, which is inconsistent with the goals of IMT-2000.</u></p> <p><del>A similar situation prevails in the use of this band by the meteorological aids service.</del> Sharing studies between the potential use of this band by IMT-2000 and <u>meteorological aids stations</u> incumbent radar systems need to be undertaken.</p> <p><del>In some countries usage for radionavigation and meteorological radars is expected to increase, making this band not available in all geographical areas for us by IMT-2000.</del></p>
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**Reasons:** Allocation status and usage in the band are clearly stated and accurately reflected. In the U.S. this band is used by more than 430 airport surveillance radars and 150 meteorological radars. As long as air traffic exists and the need for meteorological data remains, many administrations will continue to use this band as currently allocated. The characteristics of this band provide the best solution for maximum radar range and system performance.