

Report From the Meeting of  
CITEL PCC II WG-1 (WRC-07)  
20-23 June 2006

The seventh meeting of the CITEL Permanent Consultative Committee II: Radiocommunications, Working Group for the Preparation for WRC-07 was held in Lima, Peru on 20-23 June 2006. Following is the summary of discussions on WRC-07 agenda items:

**\*Agenda item 1.1** – *requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, in accordance with Resolution 26 (Rev.WRC-97)*

No significant developments with regard to this agenda item at June '06 meeting.

**Agenda Item 1.2** - *consideration of allocations and regulatory issues related to the Earth exploration-satellite (passive) service, space research (passive) service and the meteorological satellite service in accordance with Resolutions 742 (WRC-03) and 746 (WRC-03)*

At the previous PCC II meeting, US proposed additional 100 MHz to be allocated to the MetSat service in the 18 GHz band in Region 2, the lower 18.0-18.1 GHz sub-band. US also proposed consequential modifications to the coordination procedures for MetSats. At this meeting, US amended its proposal seeking to address protection of broadcast satellite service links in Region 1 and 3. Canada supported the original U.S. proposal with minor modifications in the background section and indicated tentative support for the latest U.S. proposal.

Canada also proposed to modify Appendix 7 parameters required for coordination between terrestrial and the meteorological-satellite services near 18 GHz and consequential modifications to No. **9.41**.

**\*Agenda Item 1.3** - *in accordance with Resolution 747 (WRC-03), consider upgrading the radiolocation service to primary allocation status in the bands 9 000-9 200 MHz and 9 300-9 500 MHz, and extending by up to 200 MHz the existing primary allocations to the Earth exploration-satellite service (active) and the space research service (active) in the band 9 500-9 800 without placing undue constraint on the services to which the bands are allocated;*

US proposal to upgrade the radiolocation service to primary allocation status in the bands 9 000-9 200 MHz was consistent with the proposal from Canada. Both Canada and US proposed regulatory footnote text stipulating that stations in the radiolocation service shall not cause harmful interference to, nor claim protection from stations in the aeronautical radionavigation service. Brazil endorsed US proposal. This proposal was adopted as a Draft IAP with support from Brazil, Canada and US.

Canada also proposed relating to the EESS (active)/SRS (active) allocation expansion of an additional 200 MHz. Canada proposed expanding the allocation into the 9 300-9 500 MHz band but for EESS (active) only. Canada further proposed a new regulatory provision stating that EESS (active) systems allowed operate in the 9 300-9 500 MHz band were limited to systems requiring bandwidths larger than those provided by the band 9 500-9 800 MHz.

**Agenda Item 1.4** - *frequency-related matters for the future development of IMT-2000 and systems beyond IMT-2000 taking into account the results of ITU-R studies in accordance with Resolution 228 (Rev. WRC-03)*

- At the preceding PCC.II meeting Canada proposed that all references to IMT-2000 in the Radio Regulations (eg. Footnotes 5.317A, 5.384A, 5.388 and 5.388A) be replaced by IMT and that any new regulatory provisions developed at WRC-07 under this agenda item simply reference IMT.
- Brazil proposed NOC for the 3600-4200 MHz and 4500-4800 MHz bands to keep them from being identified for IMT-2000 at WRC-07. Mexico and Chile signed on to Brazil's proposal on the 3600-4200 MHz band.
- Uruguay submitted a preliminary view expressing concern with the work being carried out in WP 8F concerning the possible identification of the 470-608, 614-806, 3600-4200 MHz and 4400-5000 MHz bands due to the use of these bands by existing services and stated that they plan on submitting a proposal at a future meeting.
- Brazil submitted an information document stating that the 470-806 MHz band should be used exclusively by the broadcast service (television).

**\*Agenda Item 1.5** - *spectrum requirements and possible additional spectrum allocations for aeronautical telecommand and high bit-rate aeronautical telemetry.*

US proposed to identify three frequency bands as suitable for flight test telemetry use: 4400-4940 MHz, 5925-6700 MHz and 5091-5150 MHz. US also proposed to specifically exclude the band 5150-5250 MHz from consideration under this agenda item (i.e., NOC in 5150-5250 MHz). Canada expressed tentative support for the US proposal.

Brazil has proposed no change to the allocation table with regard to the 4500-4800 MHz Appendix 30B band.

Brazil and Canada supported US view (proposal for NOC to Article 1) that there is no need for formal definitions of the terms "aeronautical telemetry" and "aeronautical telecommand".

Brazil and Canada supported US view that the operational command and control requirements of remotely-piloted aircraft (unmanned aerial vehicles, UAVs) should not be considered under agenda item 1.5.

Brazil and US supported Canadian proposal not to seek additional allocations to aeronautical telemetry or telecommand in bands between 16 to 30 GHz.

**\*Agenda Item 1.6** - *additional allocations for the aeronautical mobile (R) service in parts of the bands between 108 MHz and 6 GHz, in accordance with Resolution 414 (WRC-03) and, to study current satellite frequency allocations, that will support the modernization of civil aviation telecommunication systems, taking into account Resolution 415 (WRC-03).*

With regard to Resolution 414, US submitted a proposal to add allocations in support of evolving AM(R)S applications in bands 960-1024 MHz and 5091-5150 MHz. The proposal also included regulatory provisions that would ensure that AM(R)S is compatible with the existing services in these bands. To ensure that any possible changes in the 108-117.975 MHz band remain compatible with terrestrial broadcasting systems and place no additional constraints on the broadcasting service in the band 87-108 MHz, US proposed NOC to Resolution 413.

With regard to Resolution 415, Brazil and Canada supported US proposal for NOC to Article 5 in the band 10.7-12.75 GHz and NOC to No. **5.504A**.

**Agenda Item 1.7** - *sharing between the mobile-satellite service and the space research service (passive) in the band 1 668-1 668.4 MHz, and between the mobile-satellite service and the mobile service in the band 1 668.4-1 675 MHz.*

No significant developments with regard to this agenda item at June '06 meeting.

**Agenda Item 1.8** - *studies on technical sharing and regulatory provisions for the application of high altitude platform stations operating in the bands 27.5-28.35 GHz and 31-31.3 GHz in response to Resolution 145 (WRC-03), and for high altitude platform stations operating in the bands 47.2-47.5 GHz and 47.9-48.2 GHz in response to Resolution 122 (rev. WRC-03).*

Canada joined US in proposals for high altitude platform stations operating in the bands 47.2-47.5 GHz and 47.9-48.2 GHz (Resolution 122) and the bands 27.5-28.35 GHz and 31-31.3 GHz (Resolution 145). With support from two administrations, US proposals were adopted by PCC II as Draft IAPs.

**Agenda Item 1.9** - *technical, operational and regulatory provisions applicable to the use of the band 2 500-2 690 MHz by space services in order to facilitate sharing with current and future terrestrial services without placing undue constraint on the services to which the band is allocated*

Uruguay proposed to suppress MSS allocations in the band 2500-2690 MHz in Region 2. Uruguay argued that:

- there are no plans to provide MSS in the band 2500-2690 MHz in Region 2;
- implementations of satellite networks in Region 2 may negatively impact terrestrial services.

Argentina, Brazil, Chile, Costa Rica, Guatemala and Peru supported Uruguay's proposal. PCC II adopted this proposal as IAP.

Seeking to protect terrestrial services in the band, the US presented proposal to modify Article 21 to apply PFD limits for the satellite services and to restrict MSS allocation to regional systems only.

Brazil and Canada provided updates on progress of the JTG 6-8-9, held in January 2006. Canada urged administrations not to conclude on a proposal until JTG 6-8-9 finishes its technical work.

**\*Agenda Item 1.10** - *review of the regulatory procedures and associated technical criteria of Appendix 30B, without impact on existing allotments or assignments, Resolution 146 (WRC-03).*

The United States proposed a number of modifications to Appendix 30B:

- Processing of Submissions -- a non-sequential approach similar to the approach used in Appendices 30, 30A.

- Existing Systems -- existing systems should be treated as any of the assignments in the List. It would be inappropriate or practical to abruptly discontinue the operation of existing systems.
- Types of Submissions -- Sub-regional and additional uses meet identical technical conditions with respect to the plan and the List and these two categories should be merged. There should be two types of submissions:
  1. conversion of allotments;
  2. additional uses;
- Multinational Service Areas -- no agreements should be required because the rights of any administration in the Plan, as well as protection of the terrestrial services of this administration, are automatically ensured by the Plan provisions.
- Coordination of FSS earth stations and stations of terrestrial services -- coordination of FSS earth stations and stations of terrestrial services in the Appendix 30B bands should follow the provisions of Article 9 and therefore supports retention of § 8.18 without any change. The United States also supports that notification of a specific earth station using a frequency assignment included in the Appendix 30B List be conducted in accordance with the provisions of Article 11.

Canada expressed views that were generally supportive of the US proposal. On the issue of coordination of FSS earth stations and stations of terrestrial services however, Canada is of the view that Appendix 30B allotments should have precedent over other services in the bands.

**Agenda Item 1.11** - *sharing criteria and regulatory provisions for the protection of terrestrial services, in particular terrestrial television broadcasting services, in the 620-790 MHz band from GSO BSS networks and non-GSO BSS satellite networks or systems.* Previous PCC II meeting adopted CITEL IAP for NOC to Article 5 under this agenda item. Administrations of Brazil, Canada, Costa Rica, Dominican Republic, Paraguay, Peru and US supported this IAP. At the June '06 meeting, US and Canada proposed to modify the CITEL IAP because Article 5 provision dealing with the 620-790 MHz BSS allocation, No. **5.311**, does not include a reference bandwidth for the pfd. The US proposed reference bandwidth of 24 MHz and to protect more narrowband systems translated the pfd into a 4 kHz bandwidth. Canada proposed only 24 MHz bandwidth. Proposals from both administrations were consistent on other issues. Canada and US also proposed to modify Res. **545**, the companion resolution to this agenda item, to reflect that the studies on this topic are completed and to address transitional measures (e.g., how the Bureau should process the BSS submissions suspended by WRC-03). Canada supported US proposal with the exception of the PFD value in No. **5.311**. It was agreed to consider the PFD value issue at the next PCC II meeting.

**\*Agenda Item 1.12** - *to consider possible changes in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference: "Advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks" in accordance with Resolution 86 (WRC-03);*

- US proposed a new draft proposal providing modifications to No. **5.329A** and No. **5.328B** to reflect the RRB decision that requires RNSS (space-to-space) to coordinate only with other RNSS (space-to-space) but not with other services or

- with RNSS (space-to-Earth), and to remove Resolution **610 (WRC-03)** obligations from RNSS receiving space stations. Additionally, to ensure that the obligation on RNSS (space-to-space) networks under No. 5.329A is also adequately reflected for geostationary RNSS (space-to-space) networks with respect to GSO RNSS (space-to-Earth) networks in the 1215-1300 MHz and 1559-1610 MHz bands (a coordination scenario not encompassed by Nos. **9.12**, **9.12A**, and **9.13**), the modification to No. **5.328B** refers as well to No. **9.7**.
- US proposed a new draft proposal recommending several new Appendix 4 fields to be required at the advance publication stage for non-geostationary satellite networks. Currently, Appendix 4 makes certain data elements optional for the case of “Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9”. While most administrations have been supplying this optional data as part of the Advance Publication Information (API), there have been instances where the minimum required information was provided. More information is required in order to determine whether unacceptable interference may be caused by the planned satellite network or system and communicate this information to the publishing administration and the Bureau under No. **9.3**. To only require this information at the notification stage, as is the case today, makes any analysis too late to benefit either administration. Therefore modifications to Appendix 4 are necessary to allow necessary analysis to take place during API.
  - US proposed a new draft proposal recommending an addition to Appendix 7, Table 10 (Predetermined coordination distance) to cover the generic case of ground-based earth stations and aircraft (mobile) terrestrial stations. A review of Appendix 7, Table 10 indicates that the case of ground-based earth stations and aircraft terrestrial stations, except for those specifically identified cases in the table, is missing. In the past the Radiocommunications Bureau has used the predetermined distance of 500 km for this case, e.g., see Document RRB98/134(Rev.1) dated 8 December 1998. This coordination distance was derived assuming line-of-sight propagation between the aircraft and ground-based stations with a 4/3 Earth radius and the aircraft altitude of 12 km. The 500 km is consistent with the distance currently applicable to the similar cases of coordination between aircraft and ground-based stations such as i) ground-based earth stations in the bands below 1 GHz to which No. **9.11A** applies/ground-based mobile in the bands within the range 1-3 GHz to which No. **9.11A** applies and aircraft (mobile) terrestrial stations; ii) aircraft (mobile) earth stations and ground-based terrestrial stations; and iii) non-GSO MSS feeder-link earth stations and aircraft (mobile) terrestrial stations. To cover the case of ground-based earth stations and aircraft terrestrial stations, Table 10 needs to be modified to include this case with a coordination distance of 500 km.
  - US proposed a new draft proposal in line with the conclusions of ITU-R studies recommending a coordination arc value of  $\pm 8^\circ$  is appropriate to trigger coordination between GSO BSS networks serving Region 2 and GSO FSS (space-

- to-Earth) networks whose service areas are limited to Region 1 in the band 17.3-17.7 GHz and between GSO BSS networks serving Region 2 and GSO FSS (space-to-Earth) networks whose service areas are limited to Regions 1 and/or 3 in the band 17.7-17.8 GHz. As a result, specific changes are proposed to Table 5-1 of Appendix 5 to incorporate these conclusions. For the case of Region 2 FSS (space-to-Earth) with respect to Region 2 BSS in the 17.7 – 17.8 GHz band footnote No. 5.517 applies. Canada signed up to this draft proposal.
- Canada proposed a new draft proposal modifying the provisions of No. 11.47 to suppress the reference to any extension granted under No. 11.44, consistent with the decisions of WRC-03 to modify No. 11.44. It is also proposed to remove the requirement to bring into use assignments to space stations provisionally recorded in the Master Register by the date specified in the notice, as this date is considered as an expected date of bringing into use and the only regulatory deadline is the latest date provided by No. 11.44. Under this approach, it is proposed that the Bureau send a reminder only when the administration fails to advise the Bureau that the provisionally recorded assignment has been brought into use in accordance with No. 11.44. It is further proposed that, with these modifications, the RoP associated with No. 11.47 can be suppressed. Finally, it is proposed not to amend the provisions of No. 11.47 in respect of terrestrial services.
  - Canada proposed a new preliminary view addressing Resolution 951. Under Agenda item 7.1 of WRC-07, the conference will, inter alia, consider the Report of the Director of the Radiocommunication Bureau on the activities of the ITU-R-sector since WRC-03. The results of the ITU-R studies in response to Resolution 951 (WRC-03) (See Annex 1) will be included in the Director's report. This Resolution, entitled "Options to improve the international spectrum regulatory framework", was considered at the first Conference Preparatory Meeting (CPM06-1) in July 2003, and assigned to ITU-R SG 1. The five preliminary views provided are: 1) There is a need to review the service definitions and modify them as appropriate in order to ensure sufficient flexibility to accommodate new radio technologies and applications. 2) Support further study of Options 2 and 3, as described in the WP1B report to the Director of the Radiocommunication Bureau for inclusion in his report to WRC-07. 3) Further study needs to take place on which approach would provide the needed flexibility to embrace the introduction and deployment of new technologies and services in a responsive and timely manner taking into account the impact on other services. 4) Support placing this subject on a future conference agenda. In particular, support tasking WRC-10 with taking action to improve the regulatory procedures and framework for allocating spectrum. 5) The Radio Regulations should be in step with evolving spectrum management practices such as the need to accommodate technology neutral licensing requirements which provide users with flexibility to meet and adjust to market demands.

**\*Agenda Item 1.13 - Taking into account Resolutions 729 (WRC-97), 351 (WRC-03) and 544 (WRC-03), to review the allocations to all services in the HF bands between 4 MHz and**

10 MHz, excluding those allocations to services in the frequency range 7 000-7 200 kHz and those bands whose allotment plans are in **Appendices 25, 26 and 27** and whose channelling arrangements are in **Appendix 17**, taking account of the impact of new modulation techniques, adaptive control techniques and the spectrum requirements for HF broadcasting;

- Argentina, Brazil, and Dominican Republic signed on to previous Canadian proposal for no change (NOC) to spectrum allocations under this agenda item.
- Argentina, Brazil, and Dominican Republic signed on to previous Canadian proposal for no change for Amateur Allocations in the Americas (Region 2).
- Canada proposed not to include agenda item for the adaptive HF systems for future WRCs and to suppress associated resolution. Dominican Republic signed on to this proposal.

**\*Agenda Item 1.14** - *Operational procedures and requirements of the Global Maritime Distress and Safety System (GMDSS) and other related provisions of the Radio Regulations*

Canada proposed a draft new Resolution, consisting of text from Appendix 13, which could be considered necessary guidance to administrations for distress and safety communications in the maritime mobile service on the frequency 2182 KHz where non-GMDSS radiotelephony equipment is used. This proposed new Resolution is intended to address the needs of administrations desiring to maintain distress and safety communications capabilities, in MF coverage areas, with ships not yet utilizing the GMDSS techniques and procedures.

US proposed to modify Article 5 to allocate frequencies in the 156.8375-174 MHz band exclusively to the automatic identification systems (AIS).

**\*Agenda Item 1.15** - *To consider a secondary allocation to the amateur service in the frequency band 135.7-137.8 kHz.*

Uruguay supported Canada's proposal for a secondary allocation to the amateur service in the band 135.7-137.8 kHz. Uruguay and Canada also proposed that the stations in amateur service in the band 135.7-137.8 KHz shall not exceed a maximum radiated power of 1 W (e.i.r.p.).

**\*Agenda Item 1.16** - *To consider the regulatory and operational provisions for Maritime Mobile Service Identities (MMSIs) for equipment other than shipborne mobile equipment, taking into account Resolutions 344 (Rev.WRC-03) and 353 (Rev.WRC-03)*

Canada proposed modifications to ITU RR Article 19 to introduce provisions for MMSI assignments to aids to navigation and define a unique format to distinguish these stations from ship, coast stations and aircraft stations. Brazil also proposed a set of modifications to Article 19 which will permit the assignment of MMSIs to SAR aircraft and aids to navigation.

**Agenda Item 1.17** - *allocation to the FSS for feeder links for non-geostationary-satellite networks in the mobile-satellite service with service links below 1 GHz in the bands 1390-1392 MHz (Earth-to-space) and 1430-1432 MHz (space-to-Earth).*

US and Canada proposed suppression of the conditional allocation to the NGSO-MSS feederlink allocations in the 1 390 – 1 392 MHz and 1 430 – 1 432 MHz bands along with the suppression of the related resolution 745. The US proposal was adopted as the basis for the Draft IAP.

**Agenda Item 1.18** - *pdf limits in the band 17.7-19.7 GHz for satellite systems using highly inclined orbits.*

US updated CITELE on the progress of studies on this agenda item. There were no other contributions for this agenda item during the meeting. There were no contributions under this agenda item at this meeting. At previous meetings, US proposed to maintain the current power limits for satellite systems in the subject band as there has been no demonstrated interference into the fixed service. Also, imposing more stringent downlink power limits will significantly reduce the operational capabilities of the satellites.

**\*Agenda Item 1.19** - *spectrum requirements for global broadband satellite systems in order to identify possible global harmonized FSS frequency bands for the use of Internet applications, and consider the appropriate regulatory/technical provisions.*

Previous PCC II meeting adopted an IAP on this agenda item. The IAP was adopted by the Administrations of Argentina, Mexico, Brazil, Canada, Costa Rica, Paraguay, Peru, Uruguay and the United States. The IAP states NOC to Article 5 under this agenda item.

**Agenda Item 1.20** - *regulatory measures for the protection of the Earth exploration-satellite service (passive) from unwanted emissions of active services.*

No significant developments with regard to this agenda item at June '06 meeting.

**Agenda item 1.21** - *compatibility between radio astronomy service and active space services.*

US proposed to update Resolution 739 and Resolution 740 to reflect results of studies that were completed in TG 1/9.

**Agenda item 7.2** – *future agenda items*

ICAO presented contribution seeking to establish new regulatory provisions to ensure long-term spectrum availability for AMS(R)S in the 1.6/1.5 GHz bands. ICAO requested CITELE Administrations to consider new agenda item for the WRC-10.

### **Other Issues**

PCC II requested CITELE Secretariat to send out a circular that would invite them to participate in preparatory work of the Working Group on WRC-07 and encourages CITELE to develop views on the structure for WRC-07 committees and working groups and consider potential nominations from CITELE to chair WRC-07 committees and working groups.

### **Next meeting**

The next meeting of CITELE PCC II is scheduled for 17-20 of October in Caracas, Venezuela.