

# FINAL MINUTES

## **Minutes of the Ninth Meeting of the FCC Advisory Committee for the 2007 World Radiocommunication Conference (WRC-07)**

Date/Time: April 27, 2006 at 11:00 a.m.

Location: Federal Communications Commission  
Commission Meeting Room (TW-C305)  
445 12th Street, S.W., Washington, D.C.

Committee Members Present: See Appendix 1

FCC Employees Present: See Appendix 2

Meeting Summary:

### **1. Opening Remarks**

The Chair, noting that the committee had been working for about two and a half years, expressed that she was pleased with all the activity in the informal working groups since the last meeting as the committee endeavors to complete its work in time for the conference. The Chair also noted with regret that Don Abelson, Chief of the FCC's International Bureau will be retiring from the FCC. On behalf of the committee, the Chair expressed recognition and gratitude to Mr. Abelson for his leadership and assistance over the years. Mr. Abelson reflected on his experience with the WRC preparatory process and the committee since 1999 when he first arrived at the FCC and recalled events and changes since then that made the process better. Mr. Abelson wished the committee members well.

### **2. Approval of the Agenda**

The agenda, Document **WAC/089(27.04.06)**, was approved without change.

### **3. Approval of the Minutes of the Eighth Meeting**

The minutes, Document **WAC/088(25.01.06)**, were approved without change.

### **4. Status of Preliminary Views and Draft Proposals**

Alex Roytblat presented a revised status matrix, Document **WAC/038(27.04.06)**. Mr. Roytblat cautioned that the document should be viewed only as a snapshot in time because

with the approaching WRC, the pace of change in the development of US proposals had accelerated.

## **5. Report on Recent WRC-07 Preparatory Meetings**

Mr. Roytlat introduced a report on the third meeting of the Asia-Pacific Telecommunity Conference Preparatory Group for WRC-2007 (APG2007-3) that was held in Kuala Lumpur, Malaysia, 13-16 February 2006 (Document **WAC/090(27.04.06)**). He emphasized these meetings were held once a year and that this one was well attended. He encouraged everyone to read the report as it showed where the Asian and Pacific countries were in the WRC preparatory process. This document was noted.

## **6. NTIA Draft Preliminary Views and Proposals**

The Chair remarked that National Telecommunications and Information Administration (NTIA) had been prolific in producing views and proposals on WRC-07 agenda items and that many of those would be addressed in the informal working group reports today. She asked Mr. Vorhies of NTIA whether he wished to make any comment. Mr. Vorhies said that they were almost in the end game and were now working to finish the reconciliation process as almost all of the agenda items had now been addressed. He said that there was one substantial draft proposal in the works, but attention would now be turning toward the international scene.

The NTIA letters, Documents **WAC/091(27.04.06)**, **WAC/092(27.04.06)**, **WAC/093(27.04.06)**, **WAC/094(27.04.06)**, and **WAC/095(27.04.06)** were noted.

## **7. IWG Status Reports and Consideration of Draft Preliminary Views and Proposals**

### **IWG-1: Terrestrial and Space Science Services**

Mr. Roytlat reported for IWG-1 since the Chair and Vice-Chair were unavailable. He reported that IWG-1 had met twice since the last meeting of the advisory committee and had comments on NTIA draft proposals and had revised a draft proposal for WRC-07 Agenda Item 1.5 that identified suitable downlinks for wideband aeronautical telemetry:

Agenda Item 1.5: to consider spectrum requirements and possible additional spectrum allocations for aeronautical telecommand and high bit-rate aeronautical telemetry, in accordance with Resolution **230 (WRC-03)**:

- A revised Draft Proposal, Document **WAC/111 (27.04.06)**, was approved.

Comments on RCS preliminary views/proposals:

Agenda Item 1.20: to consider the results of studies, and proposals for regulatory measures, if appropriate, regarding the protection of the Earth exploration-satellite service (passive) from unwanted emissions of active services in accordance with

**Resolution 738 (WRC-03):**

Mr. Roytblat reported that both IWG-1 and IWG-2 had comments on the NTIA draft proposal for this agenda item in Documents **WAC/105(27.04.06)** (for the terrestrial side) and **WAC/100(27/04/06)** for the space side, respectively. The IWG-2 comments would be considered in IWG-2's report. The modifications to the NTIA draft proposal were coordinated between IWG-1 and IWG-2 and consolidated in Document **WAC/096(27.04.06)**:

- IWG-1 comments on the NTIA Draft Proposal, Document **WAC/105(27.04.06)**, were approved.
- IWG-1 & IWG-2 modifications to NTIA's Draft Proposal, Document **WAC/096(27.04.06)**, were approved.

Agenda Item 7.2: to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, taking into account Resolution **803 (WRC-03)**:

- Modification of an NTIA Draft Proposal for a new WRC-10 agenda item on the space research service at 22 GHz, Document **WAC/097(27.04.06)**, was approved.

In addition, Mr. Roytblat said that the group concurred on NTIA's Draft Proposal for WRC-07 Agenda Item 1.12, Document **WAC/093(27.04.06)**, which had also been coordinated with IWG-5.

Mr. Roytblat said that IWG-1 had no further meetings planned at this time but expected to meet after the June CITEL meeting.

**IWG-2: Satellite Services and HAPS**

Mr. Baruch, Chair of IWG-2, reported that his group had held two meetings since the last meeting of the advisory committee and had produced a number of documents that he was presenting today:

Agenda Item 1.8: to consider the results of ITU-R 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)**:

- Draft Proposal, Document **WAC/098(27.04.06)**, was approved.

Comments on RCS preliminary views/proposals:

Agenda Item 1.12: to consider possible changes in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference: “Coordination and notification procedures for satellite networks” in accordance with Resolution **86 (WRC-03)**:

- Modification of an NTIA Draft Proposal on the coordination of the radionavigation-satellite service (space-to-space) in the bands 1215-1300 MHz and 1559-1610 MHz, Document **WAC/099(27.04.06)**, was approved.

Agenda Item 1.17: to consider the results of ITU-R studies on compatibility between the fixed-satellite service and other services around 1.4 GHz, in accordance with Resolution **745 (WRC-03)**:

- Mr. Baruch reported that IWG-2 endorsed NTIA’s draft proposal in Document **WAC/094(27.04.06)** without changes and had no comment.

Mr. Hadinger asked the committee if there were any comments. There were none.

Agenda Item 1.20: to consider the results of studies, and proposals for regulatory measures, if appropriate, regarding the protection of the Earth exploration-satellite service (passive) from unwanted emissions of active services in accordance with Resolution **738 (WRC-03)**

- IWG-2 comments on the NTIA Draft Proposal, Document **WAC/100(27.04.06)**, were approved.
- IWG-1 & IWG-2 consolidated modifications to NTIA’s Draft Proposal, Document **WAC/096(27.04.06)**, were considered and approved under IWG-1’s report.

Mr. Baruch also reported that his group agreed with the approach of IWG-5 on NTIA’s Draft Proposal for WRC-07 agenda Item 1.12, Document **WAC/093(27.04.06)**. With respect to NTIA’s Draft Proposal for WRC-07 Agenda Item 1.12 on active and passive sensors, Document **WAC/092(27.04.06)**, he said that his group was not able to move this item forward at this time and that it remained under consideration in his group.

Mr. Baruch reported that IWG-2 had no additional meetings currently planned but would meet before the next meeting of the advisory committee.

### **IWG-3: IMT-2000 and 2.5 GHz Sharing Issues**

Ms. Cohen, Chair of IWG-3, reported that IWG-3 had met one time since the last meeting of the advisory committee and had two documents to present. She thanked the members of her group for the hard work they had done in moving these documents forward and for making compromises on both sides.

Agenda Item 1.9: to review the 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:

- Draft Proposal for satellite power flux density limits, Document **WAC/101(27.04.06)**, was approved
- Draft Proposals addressing frequency allocations, Document **WAC/102(27.04.06)**:
  1. Majority Draft Proposal, Document **WAC/102A(27.04.06)**
  2. Dissenting Draft Proposal offered by the mobile-satellite industry, Document **WAC/102B(27.04.06)**Document **WAC/102(27.04.06)** and attached Documents **WAC/102A(27.04.06)** and **WAC/102B(27.04.06)**, were approved after hearing no objection to each of the alternate draft proposals going forward.

The advisory committee Chair recalled that this issue was presented to the committee at the previous meeting and was sent back to the informal working group in the hopes that this might achieve consensus; however, this had not proved possible. The two views were now to be sent to the FCC for its consideration in light of time considerations and the upcoming CITEL meeting.

Ms. Cohen reported that the next IWG-3 meeting was scheduled for May 25, but was dependent on what international issues might arise by then.

#### **IWG-4: Broadcasting and Amateur Issues**

Mr. Ireland, Vice-Chair of IWG-4, said that his group had met three times with the last two meetings focusing specifically on achieving consensus on a draft proposal for WRC-07 Agenda Item 1.13. He reported that despite extensive discussions between the opposing parties on this item, they were not able to achieve consensus and would be offering separate draft proposals. He added that his group had approved a draft proposal for WRC-07 Agenda Item 1.11 that he would present first.

Agenda Item 1.11: to review sharing criteria and regulatory provisions for protection of terrestrial services, in particular terrestrial television broadcasting services, in the band 620-790 MHz from BSS networks and systems, in accordance with Resolution **545 (WRC-03)**:

Mr. Ireland stated that this draft proposal was in line with the last CITEL meeting which sought to protect terrestrial services from the broadcasting-satellite service; however, he noted that this item is still a hot issue in ITU-R Working Party 6E and in Europe:

– Draft Proposal, Document **WAC/103(27.04.06)**, was approved.

Mr. Ireland then presented Document **WAC/104(27.04.06)** relating to the impasse in his group on WRC-07 Agenda Item 1.13:

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 channeling arrangements are in Appendix **17**, taking account of the impact of new modulation techniques, adapting control techniques and the spectrum requirements for HF broadcasting:

Mr. Ireland reported that there were two factions in the United States on this item. One was the National Association of Shortwave Broadcasters (NASB) that represented less than 20 broadcasters operating in the HF bands that were seeking additional HF frequency allocations. The other group of HF band users included some 58 State emergency operation centers in the U.S. and its territories with operations in the fixed and mobile services and Globe Wireless who provided communication services for the maritime mobile service. The users in the latter group felt that they would be adversely affected by any expansion of the HF bands currently allocated to the broadcasting service. As a result, the NASB provided their views and HF spectrum requirements in a separate draft proposal, Document **WAC/104A(27.04.06)**. The fixed and mobile operators offered an alternate draft proposal that included a detailed list of operations that would be impacted by an expansion of the broadcasting service's HF frequency allocations, Document **WAC/104B(27.04.06)**:

When Mr. Hadinger, the Vice-Chair of the advisory committee, asked if there were any objections to the two views going forward, Mr. Wengryniuk observed that in Document **WAC/104B(27.04.06)** there was a proposal to modify Resolution **351**, but there was no indication in the text that followed as to what changes were being made. Mr. Glass of NTIA recalled that there were about 15 minor editorial changes to the text with some related to the safety of life at sea, but somehow the modifications apparently had become accepted in this document. Mr. Hadinger, noting that there were no objections to these documents going forward, said that they would make sure that the changes would be included in this document when the FCC put it on public notice. With this, Documents **WAC/104(27.04.06)** and the attached two alternate proposals in Documents **WAC/104A(27.04.06)** and Document **WAC/104B(27.04.06)**, were approved.

Comments on RCS preliminary views/proposals:

Mr. Ireland advised that they had received the NTIA draft proposal for WRC-07 Agenda Item 1.12, Document **WAC/093(27.04.06)**, but his group had no interest in it so they therefore had no objection.

Mr. Ireland said that his group had no meetings scheduled at this time, but they would be having meetings to look at WRC-07 Agenda Items 4 and 7.2.

### **IWG-5: Regulatory Issues**

Ms. Allison, the Chair of IWG-5, reported that her group had held two meetings (one in February and the other in April) since the last meeting of the full committee and had five documents to present.

Agenda Item 1.10: to review the regulatory procedures and associated technical criteria of Appendix **30B** without any action on the allotments, the existing systems or the assignments in the List of Appendix **30B**:

Ms. Allison introduced the draft proposal for this agenda item and said it provided several improvements to the broadcasting-satellite service plan in Appendix 30B based on the work in ITU-R Working Party 4A and the Special Committee on Regulatory and Procedural Matters.

- Draft Proposal, Document **WAC/106(27.04.06)** was approved.

Agenda Item 1.12: to consider possible changes in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference: “Coordination and notification procedures for satellite networks” in accordance with Resolution **86 (WRC-03)**:

Ms. Allison introduced a draft proposal related to the coordination arc under Resolution 901 in the 17.3 -17.8 GHz band. She also indicated that her group may have future proposals related to this agenda item.

- Draft Proposal, Document **WAC/107(27.04.06)** was approved.

Agenda Item 2: to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution **28 (Rev.WRC-03)**, and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with principles contained in the Annex to Resolution **27 (Rev.WRC-03)**:

Ms. Allison reported that her group had discovered an ITU-R Recommendation that had not been included in the “Incorporation by Reference” table and that her group’s draft proposal was intended to correct this oversight.

- Draft Proposal, Document **WAC/108(27.04.06)** was approved.

Comments on RCS preliminary views/proposals:

Agenda Item 1.12: to consider possible changes in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference: “Coordination and notification procedures for satellite networks” in accordance with Resolution **86**

**(WRC-03):**

Ms. Allison reported that her group had concurred with the changes to the RCS Draft proposal recommended by IWG-2 to include a missing case (aeronautical ground-based earth stations and aircraft) in Table 10 of Appendix 7 but proposed adding a single sentence at the end of the background section of the proposal.

- The proposed modification to the Draft Proposal, Document **WAC/110(27.04.06)**, was approved.

Agenda Item 2: to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution **28 (Rev.WRC-03)**, and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with principles contained in the Annex to Resolution **27 (Rev.WRC-03)**:

Ms. Allison said that her group had reviewed RCS Preliminary View in Document **WAC/077(25.01.06)** that was on the table of the last meeting of the full committee and said that her group had concurred with the RCS preliminary view.

Agenda Item 4: in accordance with Resolution **95 (Rev.WRC-03)**, to review the Resolutions and Recommendations of previous conferences with a view to their possible revision, replacement or abrogation:

Ms. Allison reported that her group had completed a review of the RCS preliminary view and concurred except that it wanted “no change” to Resolution **27** and Resolution **229**:

- IWG-5 Comments on the RCS Preliminary View, Document **WAC/109(27.04.06)**, were approved.

Ms. Allison wished to note for completeness that they had a small change for the RCS Draft Proposal for Appendix 4 of the Radio Regulations under WRC-07 Agenda Item 1.12, Document **WAC/084(25.01.06)**, but were advised that this document was already in the reconciliation process between the FCC and NTIA and that the change would be taken care of there.

She concluded her report by saying that they, like IWG-2, had not yet completed their review of the RCS Draft Proposal related to active and passive sensors under WRC-07 Agenda Item 1.12, Document **WAC/092(27.04.06)**, and were expecting more output from ITU-R Working Party 4A.

Although no further meetings of IWG-5 have been set, she expected that it would meet once or twice before the next meeting of the full committee and that they would be looking at WRC-07 Agenda Item 7.2 on future conferences.

Mr. Hadinger emphasized the need for considering items for the agendas of future conferences and said that if anyone wanted something to be added, now would be the time to identify them.

## **8. Future meetings**

Mr. Roytblat presented an updated WRC-07 Preparatory Timeline, Document **WAC/004(27.04.06)**, and pointed out that the next CITELE meeting would be held at the end of June. He also noted that the ITU Council, which was meeting this week, had confirmed the dates for the Conference Preparatory Meeting (CPM) as from February 19 through March 2, 2007, but those for WRC-07 were still under consideration.

The Chair announced that the next meeting of the advisory committee would be held on October 4, 11:00 a.m., at the FCC. She thanked the working groups for their hard work and said it was now time for them to finish their remaining work and encouraged them to pay attention to what was happening internationally so that they could react quickly. She also thanked Donna Christianson for facilitating the proceedings of this meeting..

The Chair and Vice-Chair, to the participants' applause, gave a final thanks to Don Abelson for his leadership and assistance to the committee during his tenure at the FCC.

## **9. Other business**

There being no further business, the meeting adjourned at 11:48 a.m.

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## Documents Distributed:

- WAC/004 WRC-07 Preparatory Timeline (Updated 27.04.06)
- WAC/038 Status of U.S. Preliminary Views and Proposals (Updated 27.04.06)
- WAC/088 Minutes of the 8<sup>th</sup> WRC-07 Advisory Committee Meeting
- WAC/089 Agenda for the 9<sup>th</sup> WRC-07 Advisory Committee Meeting
- WAC/090 Report from the 3<sup>rd</sup> Meeting of the APT Conference Preparatory Group for WRC-07, 13-14 February 2006
- WAC/091 NTIA letter, 17 February 2006, with Draft Proposal for WRC-07 Agenda Item 1.12 (RNSS – 13 & 16 GHz)
- WAC/092 NTIA letter, 17 February 2006, with Draft Proposal for WRC-07 Agenda Item 1.12 (Appendix 4)
- WAC/093 NTIA letter, 17 February 2006, with Draft Proposal for WRC-07 Agenda Item 1.12 (Appendix 7, Table 10)
- WAC/094 NTIA letter, 17 February 2006, with Draft Proposal for WRC-07 Agenda Item 1.17
- WAC/095 NTIA letter, 17 March 2006, with Draft Proposal for WRC-07 Agenda Item 1.20
- WAC/096 Modification of NTIA Draft Proposal for WRC-07 Agenda Item 1.20 (IWG-1 & IWG-2)
- WAC/097 Modification of NTIA Draft Proposal for WRC-07 Agenda Item 7.2, Space Research – 22 GHz (IWG-1)
- WAC/098 Draft Proposal for WRC-07 Agenda Item 1.8 (Resolution 145) (IWG-2)
- WAC/099 Modification to NTIA Draft Proposal for WRC-07 Agenda Item 1.12, Coordination of RNSS at 1.3 & 1.6 GHz (IWG-2)
- WAC/100 Comments on NTIA Draft Proposal for WRC-07 Agenda Item 1.20 (IWG-2)
- WAC/101 Draft Proposal for WRC-07 Agenda Item 1.9, satellite pfd limits (IWG-3)
- WAC/102 Cover memo from the IWG-3 Chair with attached majority view on proposed allocations for WRC-07 Agenda Item 1.9 (WAC/102A) and dissenting view from some mobile-satellite companies (WAC/102B)
- WAC/103 Draft Proposal for WRC-07 Agenda Item 1.11 (IWG-4)
- WAC/104 Cover memo from the IWG-4 Chair/Vice-Chair with attached HF broadcasting service operators' view of proposed allocations for WRC-07 Agenda Item 1.13 (WAC/104A) and the HF fixed & mobile service operators' view (WAC/104B)
- WAC/105 Comments on NTIA Draft Proposal for WRC-07 Agenda Item 1.20 (IWG-1)
- WAC/106 Draft Proposal for WRC-07 Agenda Item 1.10 (IWG-5)
- WAC/107 Draft Proposal for WRC-07 Agenda Item 1.12, Coordination arc in the band 17.3-17.8 GHz (IWG-5)
- WAC/108 Draft Proposal for WRC-07 Agenda Item 2, inclusion of ITU-R Recommendation M.1642 in Vol. 4 of the Radio Regulations (IWG-5)
- WAC/109 Comments on NTIA Preliminary View on WRC-07 Agenda Item 4 (IWG-5)
- WAC/110 Consolidated comments on NTIA Draft Proposal for WRC-07 Agenda Item 1.12, Appendix 7, Table 10 (IWG-2 & IWG-5)
- WAC/111 Revised Draft Proposal for WRC-07 Agenda Item 1.5 (IWG-1)

# MINUTES

## Appendix 1 WRC-07 Advisory Committee Attendance Ninth Meeting – April 27, 2006

<b>Last Name</b>	<b>First Name</b>	<b>Occupation Or Affiliation</b>
Allison	Audrey	The Boeing Company
Baruch	Steve	Leventhal Senter & Lerman PLLC
Baum	Kim	Motorola, Inc.
Byrd	James	DHSSWMO/Booz Allen Hamilton
Carroll	James	OSD NII
Cohen	Cecily	Nokia Inc.
Cramer	Joe	Boeing
De La Torre	Mindel	Telecommunications Management Group (TMG), Inc.
Ferguson	Ron	Sprint Nextel
Glass	Charles	NTIA
Hadinger	Peter	Northrop Grumman Space Technology
Hutchison	Kris	Aviation Spectrum Resources, Inc.
Ireland	Walt	American Radio Relay League (ARRL)
Jablonski	Daniel	Johns Hopkins University Applied Physics Lab
Keane	Ken	Duane Morris LLP
Kierans	Peter	HF Users Group
Luaces	Benito G.	ASRC Management Services
Lynch	Michael	Nortel
Markel	Robert	Radio Technical Commission for Maritime Services
Puckett	Ralph	DoD
Spalt	Doug	Department of State
Victory	Nancy	Wiley Rein & Fielding LLP
Vorhies	Jim	NTIA
Weaver	Frank C.	Boeing
Weinreich	David	ConneXion by Boeing
Wengryniuk	Jack	DirecTV

**MINUTES**  
**Appendix 2**  
**WRC-07 Advisory Committee – FCC Representatives**  
**Ninth Meeting – April 27, 2006**

**Last Name    First Name**

Abelson      Don

Christianson Donna

Giusti        John

Ibarra        Dante

Persaud      Sankar

Reed         Larry

Roytlat      Alex