

FINAL MINUTES

Minutes of the Fifth Meeting of the FCC Advisory Committee for the 2015 World Radiocommunication Conference (WRC-15)

Date/Time: January 27, 2014, at 11:00 a.m.

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

Committee Members Attending: See Appendix 1

Other Persons Attending: See Appendix 2

Meeting Summary:

1. Opening Remarks

Mr. Harris opened the meeting by announcing that Ms. Diane Cornell has accepted a new position with the FCC and, therefore, will not be able to continue as the Committee Vice Chair. Mr. Harris, on behalf of the Committee, expressed sincere appreciation to Ms. Cornell for her contribution to the work of the Committee. Mr. Harris further informed the Committee that the FCC Chairman appointed Ms. Jennifer Manner/EchoStar as the new Committee Vice-Chair. Mr. Harris expressed that he and the Committee members look forward to working with Ms. Manner.

Mr. Harris recognized that all of the Committee's Informal Working Groups (IWGs) have made excellent progress since the last Committee meeting. He also reminded everyone that the Conference Preparatory Meeting (CPM) is scheduled for early 2015 and that it is important for the Committee to advance recommendations as quickly as possible to ensure they are reflected in the CPM report.

Mindel De La Torre, International Bureau Chief, joined the meeting.

2. Approval of the Agenda

The agenda, Document **WAC/061(27.01.14)**, was approved without change.

3. Minutes of the Fourth Meeting

The minutes of the fourth meeting, **Document WAC/055(19.09.13)**, were approved.

4. Reports of Other WRC-15 Regional Preparatory Meetings

Mr. Roytblat, the Designated Federal Official for the Committee, introduced a report, **Document WAC/056(27.01.14)**, of the WRC-15 preparatory meeting held by the European Conference of Postal and Telecommunications Administrations (CEPT). He invited the Committee membership to review the report, which contains brief descriptions of the European positions as of September 2013.

5. NTIA Draft Preliminary Views and Proposals

Mr. Harris introduced the recommendations NTIA sent to the Committee in Documents **WAC/057/058** and **059(27.01.14)**. He recognized Mr. Kotler from NTIA and invited Mr. Kotler to comment on NTIA's inputs to the Committee.

Mr. Kotler advised the Committee that he has taken over as NTIA liaison to the Committee from Dr. Drazenovich. He expressed the federal agencies' appreciation to the Committee for its work and announced that the next meeting of the Radio Conference Subcommittee (RCS) is February 6, 2014, when it will consider the outputs from this meeting of the Committee. He also noted that there is one additional input from NTIA to the Committee since the last meeting, **Document WAC/062(27.01.14)**.

6. IWG Status reports and Consideration of Preliminary Views and Draft Proposals

IWG-1: Maritime, Aeronautical and Radar Services

Ms. Allison, Chair of IWG-1, reported that IWG-1 met twice since the last Committee meeting and has three draft proposals for consideration by the Committee, one of which builds on the NTIA proposal on Agenda Item 1.14.

Agenda Item 1.14: to consider the feasibility of achieving a continuous reference time-scale, whether by the modification of coordinated universal time (UTC) or some other method, and take appropriate action, in accordance with Resolution **653 (WRC-12)** — Draft Proposal, Document **WAC/063(27.01.14)**, was approved.

Agenda Item 1.16: to consider regulatory provisions and spectrum allocations to enable possible new Automatic Identification System (AIS) technology applications and possible new applications to improve maritime radiocommunication in accordance with Resolution **360 [COM6/21] (WRC-12)** — Draft Proposal, Document **WAC/064(27.01.14)**, was approved.

Agenda Item 1.17: to consider possible spectrum requirements and regulatory actions, including appropriate aeronautical allocations, to support wireless avionics intra-communications (WAIC), in accordance with Resolution **423 (WRC-12)** — Draft Proposal, Document **WAC/065(27.01.14)**.

Mr. Jansky, on behalf of SES, stated there was a concern about out-of-band emissions and read the following statement into the record:

SES has discussed with Boeing numerous times the need to address adjacent band interference into FSS receivers below 4.2 GHz. We are ok with this proposal going forward as long as the WAC and IWG-1 are willing to develop the necessary provisions in a future proposal to protect FSS earth station receivers.

Ms. Allison encouraged SES to participate in the next meeting of IWG-1 on April 2, 2014. There being no further discussion, the Draft Proposal, Document **WAC/065(27.01.14)** was approved.

IWG-2 – Terrestrial Services

Mr. Rush, Chair of IWG-2, reported that IWG-2 had four proposals to present under Agenda Item 1.1 and one item to report under Agenda Item 1.4.

Agenda Item 1.1: to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution 233 (WRC-12).

- Draft Preliminary View for the band 3400-4200 MHz — Document **WAC/060(27.01.14)**, was approved.
- Draft Proposal for the band 470-698 MHz — Document **WAC/066(27.01.14)**

Mr. Rush stated that Document **WAC/066(27.01.14)** contains two divergent views to present to the Committee for the global primary allocation for the band 470-698 MHz, Attachment/View A and Attachment/View B.

He outlined the efforts IWG-2 made in its attempts to put forth one view on this issue. Mr. Rush reported that this issue was discussed by IWG-2 as early as April 2013 and that IWG-2 was prepared to address issues at its September 2013 meeting. Upon becoming aware that other interested parties had not been involved in IWG-2's consideration of the issue, IWG-2 postponed discussions until all interested parties were available for the

discussion at two meetings in December 2013 and two meetings in January 2014.

Mr. Rush reported that although the parties acted in good faith, they could not negotiate a compromise recommendation on this issue. Mr. Rush further reported that proponents of View B insisted on making recommendation at this Committee meeting because, in their view, it is imperative for the United States to make a specific proposal on the 470-698 MHz band to the upcoming meeting of CITELE PCCII in March 2014..

Mr. Harris commented that the Committee stresses consensus but absent consensus the Committee's goal is to advise the FCC of members' views even if these views are divergent.

Mr. Franca/NAB intervened that the proposal was only considered at two IWG meetings and that he believed that with more time consensus may have been possible. Mr. Franca further expressed that although he did not have a problem with the way the divergent views are provided, but noted that he also recommended not to send these recommendations forward but to return the document to IWG-2 for further consideration in an attempt to reach a consensus recommendation in the future. Mr. Franca indicated that he believed that consensus was close and achievable with further discussion.

Mr. Harris asked Mr. Rush if IWG-2 could meet and reach consensus before the upcoming meeting of CITELE PCC II. Mr. Rush replied that there are numerous ITU-R meetings during the month of February and that CITELE preparations begin in March.

Mr. Harris asked Mr. Franca if the document fairly represents his parties' views. Mr. Franca stated that Document **WAC/066** includes the documents that were submitted. He indicated that View A is supported by NAB, Fox and CBS.

Ms. Stancavage/Intel, stated that extensive discussions of the proposals continued offline, including over the holidays. She said she appreciated all the effort to reach a compromise and concurred with Mr. Rush that compromise could not be reached. She stated it is important to the mobile community that these views be considered so that the U.S. could have a position going into the CITELE meeting.

Mr. Harris observed that it appears consensus may not be reached in timely manner, but that the views of the members are reflected fairly in the document. Document **WAC/066(27.01.14)**, was approved with non-consensus views.

- Draft Proposal for the band 1435-1525 MHz — Document **WAC/067(27.01.14)**, was approved.
- Draft Proposal for the band 5350-5470 MHz — Document **WAC/068(27.01.14)**

Mr. Rush, at the request of some members of IWG-2, read the following statement into the record regarding Document **WAC/068**:

“Some participants of IWG-2 (SES, Inmarsat and Intelsat) noted that this proposal does not define the associated technical provisions to ensure protection of existing services, which in this case are all Federal users under NTIA’s purview. Since there are no co-primary non-Federal services and no directly affected stakeholder (e.g., manufacturer) currently opposes this proposal, we are not opposing the WAC’s approval today of this proposal as drafted. However, we are very concerned about the WAC, FCC, or the US moving forward on proposals that do not, as the bare minimum, define the necessary associated technical constraints. Accordingly, we wish to state our position that we do not view moving forward on this proposal under these conditions as having set a precedence for the future work/contribution of the WAC and the FCC.”

There being no other comments Document **WAC/068(27.01.14)**, was approved.

Agenda Item 1.4: to consider possible new allocation to the amateur service on a secondary basis within the band 5 250-5 450 kHz in accordance with Resolution **649 (WRC-12)** — Draft Proposal, Document **WAC/069(27.01.14)**, was approved.

Mr. Rush made additional comments on documents that were received from NTIA:

- Document **WAC/057(27.01.14)**, is supported by IWG-2.
- Document **WAC/058(27.01.14)**, the proposal for the band 1435-1535 MHz, is very similar to the proposal made by IWG-2 in Document **WAC/067(27.01.14)** and the two documents can be easily reconciled because the differences are primarily in the background section.
- Document **WAC/058(27.01.14)**, the proposal for the band 460-470 MHz to upgrade the existing meteorological satellite service from a secondary to a primary allocation at WRC-18, was reviewed by IWG-2. No decision has been made and IWG-2 and will continue to investigate the implications of upgrading the secondary allocation in the band because the band is already allocated to the mobile service and the band 450-470 MHz is identified for IMT. IWG-2 will look at potential sharing issues before moving forward.

IWG-3 – Space Services

Mr. Wengryniuk, Chair of IWG-3, reported that IWG-3 had four documents for consideration by the Committee.

Agenda Item 1.5: to consider the use of frequency bands allocated to the fixed-satellite

service not subject to Appendices 30,30A and 30B for the control and non-payload communications of unmanned aircraft systems (UAS) in non-segmented airspace in accordance with Resolution **153 (WRC-12)** — Draft Proposal, Document **WAC/070(27.01.14)**, was approved.

Mr. Wengryniuk stated that IWG-3's next document, Document **WAC/071(27.01.14)**, concerns Agenda Items 1.6.1 and 1.6.2.

Agenda Item 1.6.1: To consider possible additional primary allocations to the fixed-satellite service (Earth-to-space and space-to-Earth) of 250 MHz in the range between 10 GHz and 17 GHz in Region 1 and review the regulatory provisions on the current allocations to the fixed-satellite service within this range, taking into account the results of ITU-R studies, in accordance with Resolution **151 (WRC-12)**.

Agenda Item 1.6.2: To consider possible additional primary allocations to the fixed-satellite service (Earth-to-space) of 250 MHz in Region 2 and 300 MHz in Region 3 within the range 13-17 GHz; and review the regulatory provisions on the current allocations to the fixed-satellite service within each range, taking into account the results of ITU R studies, in accordance with Resolution **152 (WRC 12)**.

Draft Proposal, Document **WAC/071(27.01.14)**, was approved.

Agenda Item 1.7: to review the use of the band 5 091-5 150 MHz by the fixed-satellite service (Earth-to-space) (limited to feeder links of the non-geostationary mobile-satellite systems in the mobile-satellite service) in accordance with Resolution **114 (Rev.WRC-12)** — Draft Proposal, Document **WAC/072(27.01.14)**, was approved.

Agenda Item 1.12: to consider an extension of the current worldwide allocation to the Earth exploration-satellite (active) service in the frequency band 9 300 – 9 900 MHz by up to 600 MHz within the frequency bands 8 700 – 9 300 MHz and/or 9 900 – 10 500 MHz, in accordance with Resolution **651 (WRC-12)** — Draft Proposal, Document **WAC/073(27.01.14)**, edits to the NTIA proposal contained in Document **WAC/059(27.01.14)**, was approved.

Mr. Wengryniuk commented on the documents received from NTIA

- Document **WAC/058(27.01.14)** – Proposal on 1.9.2; IWG-3 supports this proposal going forward.
- **WAC/059(27.01.14)** – IWG-2 put forth its own proposal in Document **WAC/073(27.01.14)**.

- **WAC/062(27.01.14)** – IWG-2 put forth its own proposal on this Agenda Item contained in Document **WAC/071(27.01.14)**.

Mr. Wengryniuk reported that IWG-3 has developed draft recommendations on all of the agenda items under its purview except Agenda Items 1.8 and 1.9.1. He stated there may be additional proposals on Agenda Item 1.6, but that IWG-3 has touched all of the other agenda items assigned to IWG-3.

IWG-4 – Regulatory Issues

Mr. Ladson, Vice Chair of IWG-4, reported that IWG-4 had met four times since the last meeting of the Committee and considered three contributions from advisory committee members and has one proposal for consideration by the Committee.

Agenda Item 7: to consider possible changes, and other options, in response to Resolution 86 (rev. Marrakesh, 2002) of the Plenipotentiary Conference, an advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks, in accordance with Resolution **86 (Rev. WRC-07)** to facilitate rational efficient, and economical use of radio frequencies and any associated orbits, including the geostationary –satellite orbit — Draft Preliminary View, Document **WAC/074(27.01.14)**, was approved.

7. Future Meetings

Mr. Harris referred to Document **WAC/004(Rev. 27.01.14)**, the updated timeline for the Committee’s work. He indicated that the sixth meeting of the Committee is tentatively scheduled for September 16, 2014.

8. Other Business

Mr. Roytblat announced that the Committee’s charter would be expiring and that all the members would need to reapply for membership. Emails will be sent in March asking members to confirm their continued interest in the Committee. He asked that members not disregard these emails.

Ms. Allison stated that she believed the week of September 16, 2014, is the week CITELE PCCII will meet. The Committee will probably want to meet before the PCCII meeting to make additional inputs to CITELE. Mr. Harris stated that the Committee will take that information under advisement.

Mr. Harris thanked everyone for their extraordinary work and congratulated everyone on what they have accomplished.

There being no other business, the meeting was adjourned.

Documents Distributed:

WAC/055	Draft Minutes of Fourth Meeting 19.09.13
WAC/056	Report from the Third Meeting of CPG
WAC/057	Letter, 12 November 2013, Draft Proposal on 1.1(2 GHz band)
WAC/058	Letter, 13 December 2013, Draft Proposal on AI 1.1 (1435-1525 MHz), 1.9.2, 1.14 and 10
WAC/059	Letter, 13 December 2013, Draft Proposal on AI 1.12 (modification to the table of allocations to include additional Earth exploration-satellite service allocations)
WAC/060	IWG-2 Draft Preliminary View on Agenda Item 1.1 for the band 3400-4200 MHz
WAC/061	Agenda for 5th WRC-15 Advisory Committee Meeting
WAC/062	Letter, 6 January 2014, Draft Proposal on AI 1.6.1 and 1.6.2
WAC/063	IWG-1 Draft Proposal on Agenda Item 1.14
WAC/064	IWG-1 Draft Proposal on Agenda Item 1.16
WAC/065	IWG-1 Draft Proposal on Agenda Item 1.17
WAC/066	IWG-2 Draft Proposal for Agenda Item 1.1 for the band 470-698 MHz, Recommendations A and B
WAC/067	IWG-2 Draft Proposal for Agenda Item 1.1 for the band 1435-1525 MHz
WAC/068	IWG-2 Draft Proposal for Agenda Item 1.1 for the band 5350-5470 MHz
WAC/069	IWG-2 AI 1.4 Draft Proposal
WAC/070	IWG-3 Draft Proposal on Agenda Item 1.5
WAC/071	IWG-3 Draft Proposal on Agenda Item 1.6.1 and 1.6.2
WAC/072	IWG-3 Draft Proposal on Agenda Item 1.7
WAC/073	IWG-3 Draft Proposal on Agenda Item 1.12
WAC/074	IWG-4 Draft Proposal on Agenda Item 7

MINUTES
Appendix 1
WRC-15 Advisory Committee Attendance
Fifth Meeting – January 27, 2014

Audrey Allison, The Boeing Company
Amy Alvarez, AT&T
Scott Blue, Microsoft
M. Winston Caldwell, Fox
Patricia Cooper, SIA
Craig Cuttner, Time Warner
Joseph R. Dockemeyer, Delphi
Kyle Entz, Sprint Nextel Corporation
Bruce Franca, National Association of Broadcasters
Alexander Gerdenitsch, Motorola Mobility
Scott Blake Harris, Wilkinson Barker Knauer
Kris Hutchison, Aviation Spectrum Resources, Inc.
William K. Keane, Duane Morris representing the
Aerospace and Flight Test Radio Coordinating Council
Jeanette Kennedy, Nokia Inc.
Abdolmajid Khalilzadeh, Intelsat
Robert Kubik, Samsung
Damon C. Ladson, Wiltshire & Grannis LLP
Robert Markle, RTCM
Leslie Martinkovics, Verizon
Chris Murphy, Inmarsat
Brennan T. Price, ARRL
Mark Racek, Ericsson
Charles Rush, TMG
R. Jayne Stancavage, Intel
Jack Wengryniuk, DirecTV

MINUTES

Appendix 2

WRC-15 Advisory Committee – FCC Representatives and Observers Fifth Meeting – January 27, 2014

FCC Representatives:

Alexander Roytblat, FCC
Mindel De La Torre, FCC
Donna Christianson, FCC
Joseph Hill, FCC
Dante Ibarra, FCC
Michael Mullinix, FCC
Larry Olson, FCC
Sankar Persaud, FCC
Allen Yang, FCC

Observers:

Pasquale Amadio, EchoStar
Lynn Cloudy, National Association of Broadcasters
Joe Cramer, Boeing
Pacale Dumit, SES
Charles Einolf, CBS
Chris Hofer, ViaSat
Don Jansky, Jansky-Barmat Telecommunications, Inc.
Scott Kotler, NTIA
Giadira V. Leon, Hughes/EchoStar
Jeff Marks, Alcatel-Lucent
Kathryn Martin, Access Partnership
Patricia Paoletta, Google and NCTA
Jon Peha, Carnegie Mellon University
Cortney Robinson, Aerospace Industry Association
Craig Tanner
Joanne Wilson, ASRC for NASA