

Meeting Minutes

Meeting: WAC-15, Informal Working Group 2: Terrestrial Services (IWG-2)

Date/Time: April 20, 2015/ 1:00 p.m. – 3:00 p.m. (EDT)

Location: Teleconference only

Participants: See Attachment 1.

Meeting Summary:

1) Opening Remarks and Introductions:

Charles Rush/TMG, Chair of IWG-2, convened the meeting at 1:00 pm. He asked that participants send an email to Vice-Chair Jayne Stancavage/Intel indicating their participation.

2) Approval of Agenda:

The agenda in Document **IWG-2/070 (20.04.15)** was approved, noting that Steve Baruch/New Wave Spectrum Partners had sent comments to the reflector pertaining to agenda item 4.a.4 and Scott Kotler/Lockheed Martin clarified that agenda item 4.a.5 only pertains to 5925-6425 MHz.

3) Minutes:

- a. Appointment of minute taker for the meeting: Ms. Stancavage was appointed to take the minutes of the meeting.
- b. Approval of Minutes from IWG-2 April 8, 2015 Meeting: The minutes of the last meeting as contained in Document **IWG-2/068r2 (09.04.15)** were approved.

4) Consideration of Draft IWG-2 Proposals:

- a. **WRC-15 Agenda Item 1.1; MBB/IMT (Res. 233)**
 1. 1300-1400 MHz - 1. 1300-1400 MHz
 - a) Document **IWG-2/065 (08.04.15)**
 - b) Document **IWG-2/065r1 (20.04.15)**
 2. 2700-2900 MHz
 - a) Document **IWG-2/066 (08.04.15)**
 - b) Document **IWG-2/066r1 (20.04.15)**
 3. 4400-4990 MHz
 - a) Document **IWG-2/067 (08.04.15)**
 - b) Document **IWG-2/067r1 (20.04.15)**

During the April 8th meeting of IWG-2, it was agreed to use the CITEP PCC II US contributions for revisions in response to WAC/105 (20.05.15) and that interested parties should contact Ms. Stancavage with comments on the 1300-1400 MHz, 2700-2900 MHz, and 4400-4990 MHz proposals respectively. Ms. Stancavage introduced the proposed revisions regarding the 1300-1400 MHz, as contained in **IWG-2/065r1 (20.04.15)**. No comments were made and the document was agreed. Ms. Stancavage then introduced the proposed revisions regarding the

IWG-2/072r1 (22.04.15)

2700-2900 MHz bands, as contained in **IWG-2/066r1 (20.04.15)**. A brief discussion regarding the meaning of the proposal to remove the underline NOC (NOC) ensued. The document was agreed. Ms. Stancavage then introduced the proposed revisions regarding 4400-4990 MHz, as contained in IWG-2/067r1 and clarified that she had already received feedback that further discussions will be needed. A brief discussion was held regarding “soft NOC” (NOC not underlined) vs “hard NOC” (NOC underlined) and Region 2 vs all three Regions. Interested parties should contact Jayne Stancavage regarding document **IWG-2/067r1 (20.04.15)**.

Later in the meeting, Mr. Baruch raised a question regarding the removal of the underlining from NOC. After discussions on how to address this, the meeting agreed to hold offline discussions on IWG-2/067r1 first, then develop any revisions to documents IWG-2/065r1 and IWG-2/066r1. Interested parties in the general “NOC” discussion regarding documents IWG-2/0651 and IWG-066r1 should contact Jayne Stancavage.

4. 5925-6425 MHz
 - a) Document **IWG-2/064 (08.04.15)**
 - b) Document **IWG-2/064r1 (20.04.15)**

Ms. Stancavage introduced the proposed revisions in document IWG-2/064r1. Mr. Baruch introduced comments regarding these proposed revisions. A brief discussion regarding multiple administrations was held. Further offline discussions are needed. Interested parties should contact Steve Baruch to participate.

5. 1427-1518 MHz
 - a) Document **WAC/109 (20.05.15)**
 - b) Document **IWG-2/071 (20.04.15)**

The Chair asked Ms. Stancavage to serve as chair for discussion of these documents. Mr. Rush then introduced document IWG-2/071. A discussion regarding the basis for the proposed values, the current FCC rules, ITU-R studies and user deployment densities then ensued. Further offline discussions are needed. Interested parties should contact Charlie Rush to participate.

b.) WRC-15 Agenda Item 10: Future Agenda Items

1. Broadband applications using HAPS- Document **IWG-2/063r1 (20.04.15)**

Tricia Paoletta/Harris, Wiltshire and Grannis introduced document IWG-2/063r1, noting that offline discussions on this document have not yet concluded. A discussion regarding proposed frequency bands, inter-HAPS links, fixed vs mobile service, the definition of HAPS, and regulatory changes/additional allocations ensued. Mr. Roytblat/FCC noted that “High Altitude Platform Station” (HAPS) are stations not a service. He further noted that in the context of the Radio Regulations, allocations can be made only to services but not to stations. He, therefore, encouraged the group to reconsider the formulation of the proposed agenda item calling for allocations to HAPS. Offline discussions will continue. Interested parties were asked to contact Tricia Paoletta.

2. IMT above 6 GHz- Document **IWG-2/069 (20.04.15)**

Ms. Stancavage introduced the document. Several members raised concerns with the proposal, including one member who stated he would continue to oppose at the WAC. A question was raised regarding the possible suppression of Resolution 233. Other members asked questions regarding the mechanism and format for providing feedback to the FCC. Mr. Roytblat explained that the scope and procedures for the WAC recommendations are defined in the Committee's Terms of Reference. He further noted that, in light of understanding that other countries/Regions are in the process of developing WRC-15 proposals on this topic, the FCC would welcome a recommendation on this issue and that it would be important to establish the U.S. industry views. Offline discussions will be needed. Interested parties should contact Jayne Stancavage.

5. **Status of IWG-2 Agenda Items**

The Chair noted that the status of IWG-2 Agenda Items has been provided in the agenda. Members were urged to notify the Vice-Chair as soon as possible if any errors are identified.

6. **IWG-2 Documents for May 20 WAC meeting**

The group was notified that May 11th is the deadline for IWG-2 documents to be submitted to the FCC for the May 20th WAC meeting.

7. **Any Other Business**

No other business was discussed.

8. **Next meeting**

Wednesday, April 29th 1:30-3:30 pm EDT

9. **Adjournment:**

The meeting was adjourned at 1:48 pm.

Public Participation Statement: This meeting was open to the public as announced by Public Notice, [DA15-448](#) (April 13, 2015).

Field Code Changed

Attachment 1: List of Attendees April 20, 2015 meeting

Steve Baruch	New Wave Spectrum Partners LLC
Paul Caritj	Harris Wiltshire Grannis
Winston Caldwell	21 st Century Fox
Pascale Dumit	SES
Bob Denny	NTIA
Charles Einolf	CBS
Alex Epshteyn	Intelsat
Andy Feltman	Exelis
Bruce Franca	National Association of Broadcasters
Alexander Gerdenitsch	Motorola Mobility, Inc.
Charles Glass	NTIA
Tom Hayden	TLH Consulting
Chris Hofer	Viasat
Dante Ibarra	FCC
Don Jansky	Jansky- Barmat
Ken Keane	Duane Morris
Kim Kolb	Boeing
Scott Kotler	Lockheed Martin Corp.
Rob Kubik	Samsung
Damon Ladson	Harris Wiltshire Grannis
Michael Mullinix	FCC
Tricia Paoletta	Harris Wiltshire Grannis for Google & NCTA
Mark Racek	Ericsson
Jim Ragsdale	Ericsson
Zach Rosenbaum	Echostar
Alexander Roytblat	FCC
Bill Rummmler	Fixed Wireless Communications Coalition
Charlie Rush	TMG, Inc.
Amy Sanders	Alcatel-Lucent
Russ Shields	Ygomi
Jayne Stancavage	Intel Corp.
Milan Vuckovic	Verizon
Wayne Whyte	NASA
Joanne Wilson	ASRC Research and Technology Solutions