**Meeting Minutes**

Meeting: IWG-2 (Meeting 24)

Date/Time: Tuesday, September 18, 2018 2:00 p.m.-4:00 p.m. EDT

Location: Conference call

Committee Members & Observers Present:

Chair: Jayne Stancavage (Intel Corporation)

For additional members and observers present, see attached Appendix A.

FCC Employees Present:

Michael Mullinix, Designated Federal Official (DFO) for WAC-19

Meeting Summary:

1. Approval of Agenda:

Jayne Stancavage introduced the agenda in **Document IWG-2/086 (17.09.18)**.The agenda was approved.

1. FCC Reps, Opening Remarks and Introductions:

Michael Mullinix, DFO for WAC-19 confirmed his presence on the call. Following roll call, participants were asked to email the chair confirming their presence on the call.

1. Approval of minutes from previous IWG-2 meeting:

The minutes of the previous meeting contained in **IWG-2/085(17.09.18)** were approved.

1. Discussion of Draft IWG-2 Preliminary Proposals:

a) AI 1.13 IMT re: 47.2-50.2 GHz

View A: Document **IWG-2/072 (10.04.18)**

View B: Document **IWG-2/083r1 (17.09.18)**

Veena Rawat, GSMA, introduced the changes in Document **IWG-2/083r1.** Brennan Price, Echostar, advised the group that he has been in discussions with some other WAC members. Although they are generally in agreement that if there is an identification for IMT in 47.2-48.2 GHz it should be under certain conditions, they have not come to agreement over how to address it with respect to the document. Ms. Stancavage then described the process when there was a difference of views. Mr. Mullinix provided additional information on how authors of the View A/View B had the opportunity to provide a cover sheet: Mr. Mullinix asked the proponents of each to try to make the document more positive about their proposal and less negative towards the other view. Members were invited to join either view if desired. There was also a request to add information about HAPS in document **IWG-2/072 (10.04.18).**

b) AI 1.16 WAS/RLAN 5GHz re: 5150-5250 MHz

View A: Document **IWG-2/076r1 (07.09.18)**

View B: Document **IWG-2/082r1 (18.09.18)**

David Weinreich, Globalstar, confirmed that the only change in **IWG-2/082r1** was to correct the date of the Resolution 229 revision. Mr. Mullinix noted that the same edit should be made on IWG-2/076r1. Members were invited to join either view if desired.

1. Agenda Item 1.13 re: 31.8-33.4 GHz and 45.5-47.2 GHz- The chair asked if there were any comments or questions regarding the proposals. With respect to 31.8-33.4 GHz, Cody Hogan, T-Mobile noted that T-Mobile does see value in the band. Mr. Hogan confirmed that he was willing to have those comments be provided to the WAC but allow the WAC to consider the proposal in Document **IWG-2/084 (07.09.18).** With respect to the 45.5-47.2 GHz bands, there were discussions about still considering the bands and concerns about studies not having been performed. It was agreed that the Chair would provide comments that IWG-2 was not in a position to endorse the proposal at this time but will have further discussions on the matter.
2. Agenda Item 1.14: Michael Tseytlin, Facebook, introduced the revisions in Document **IWG-2/078r2**. Questions and comments included the following: several members expressed concerns with mobile protection (PDF mask, .1% percentage of deployment, proposed application of compliance mask, and shall not claim protection). Concerns were also raised with respect to the limits for the protection of the FSS and angle: there was a discussion on the studies in WP5C on the issue. There was also a discussion about the increase in EIRP due to rain fade in Resolution 122 as well as the compromise offered by the author to restrict ground stations to gateways only. Another issue discussed was whether the language in 38 GHz Resolution about “shall not claim protection” might cause confusion given the Article 21 limits. In addition, there was a concern that some of the changes that have been made in this document addressing a mask to protect the mobile service is similar to the discussion on agenda item 1.5 in IWG-3 on the same mask and that there would need to be a way to indicate that this is not an agreed mask with respect to agenda item 1.5. Scott Kotler, Lockheed Martin, provided information about various editorial revisions he had made (which will be made available in a revision 3 of the document today). In addition, other revisions had been made as a result of discussion between several members over the past two days. The Chair asked the author to provide a revision with the changes that had been made to the reflector today. Mr. Mullinix noted that although the work on the draft proposal started early, the complete proposal was not received until relatively late. However, the FCC would still like to receive whatever proposals can be submitted to the October WAC meeting. There was a discussion about the timeline of providing documents for the WAC.
3. Agenda Item 1.16 re: 5250-5925 GHz:Mr. Roytblat introduced revisions to the RCS proposal in document **IWG-2/079r2 (18.09.18)** which was to underline NOC on the cover page and to embed a clean version of the document as requested to avoid confusion about the revisions to the version received from the RCS. The document was approved for submission to the WAC.
4. Update on Current Status:

There were no updates on current status.

1. Next meetings:

The meeting agreed to hold an additional IWG-2 meeting on Friday with an agenda focused solely on the different views with respect to agenda item 1.13 regarding the 47.2-50.2 GHz bands and agenda item 1.14. Proposals are due on Thursday so they can be distributed to the reflector. View A/View B cover sheets are due to Michael Mullinix on Friday by noon Eastern so he can prepare the documents for the WAC meeting.

The next WAC meeting will be held on Monday, Oct. 1st at 11 am at the FCC.

Documents Distributed:

IWG-2/072 AI 1.13 draft proposal on 48.2-50.2 GHz

IWG-2/076r1 AI 1.16 draft proposal on 5150-5250 MHz

IWG-2/078r2 AI 1.14 draft proposal redline

IWG-2/078r2 AI 1.14 draft proposal clean

IWG-2/079r2 AI 1.16 draft proposal on 5250-5925 MHz (revisions to RCS)

IWG-2/082r1 AI 1.16 draft proposal on 5150-5250 MHz

IWG-2/083r1 AI 1.13 draft proposal on 47.2-50.2 GHz

IWG-2/084 Draft proposals from RCS (AI 1.13 on 31.8-33.4 GHz & 45.5-47.2 GHz)

IWG-2/085 Meeting 23 minutes

IWG-2/086 Meeting 24 agenda

Public Participation Statement:

Meeting IWG-2/24 (18.09.2018) was open to the public ([DA 18-804](https://www.fcc.gov/document/wrc-19-advisory-committee-meetings-iwg-2)) and had 32 members, 4 alternate members, 17 observers, 1 IWG-2 official and 1 FCC employee in attendance.

Author:

Jayne Stancavage, Intel Corporation, prepared these minutes.

**Appendix A: Additional Attendees at September 18, 2018** **meeting of IWG-2**

**Members**

| **Organization** | **Member Name** |
| --- | --- |
| Aerospace and Flight Test Radio Coordinating Council | Ken Keane |
| Apple | Mark Neumann |
| ARRL | Jonathan Siverling |
| AT&T | Stephen Blust |
| Boeing Company | Alex Epshteyn |
| Cisco Systems, Inc. | Dave Case |
| Comcast | Bruce Kostreski |
| CTIA | Jen Oberhausen |
| EchoStar Corporation | Brennan Price |
| Ericsson | Mark Racek |
| Facebook | Michael Tseytlin |
| Globalstar | David Weinreich |
| Google | Dave Marshak |
| GPS Innovation Alliance | Stephen Baruch |
| GSA | Dr. Charles Rush |
| GSMA | Dr. Veena Rawat |
| Inmarsat | Giselle Creeser |
| Iridium | Damon Ladson |
| Jansky-Barmat | Don Jansky |
| Lockheed Martin | Scott Kotler |
| Microsoft | Michael Daum |
| NCTA | Andy Scott |
| Omnispace | Julie Zoller |
| Samsung Electronics America | Rob Kubik |
| Sennheiser | Joe Ciaudelli |
| SES Americom, Inc. | Philippe Secher |
| Sprint Corporation | Kyle Entz |
| Thales | Alexandre Guerin |
| T-Mobile | Cody Hogan |
| Verizon | Leslie Martinkovics |
| ViaSat, Inc. | Chris Hofer |
| Wi-Fi Alliance Association | Alexander Roytblat |

**Observers**

1. Colin Alberts, Freedom Technologies
2. Reza Arefi, Alternate for Intel Corp
3. Mike Biggs, FAA
4. Scott Bilquist, World Radiocommunication Week
5. Bob Denny, NTIA
6. Ed Ehrlich, Interdigital
7. David W. Eierman, Motorola Solutions
8. Kevin Eisenhauer, Access Partnership
9. Andy Feltman, Peraton for DoD
10. James Higgins, ASRC Federal Technical Services for NASA
11. Dan Jablonski, Alternate for AFTRCC
12. Giadira Leon, S3 for AFSMO
13. Kathryn Martin, Access Partnership (Alternate for Facebook)
14. Geraldo Neto, TMG Telecom
15. Tricia Paoletta, HWG
16. Tom Schaffnit, DoT
17. Raj Sengupta, CTIA
18. Brandy Sykes, Alternate for Apple
19. Joanne Wilson, ASRC Federal Technical Services for NASA
20. Fumie Wingo, Navy
21. Chip Yorkgitis, Kelley Drye