**Meeting Minutes**

Meeting: IWG-3 (Meeting 17)

Date/Time: Wednesday, September 19, 2018 11:00 AM -13:00 PM EDT

Location: Conference call

Committee Members & Observers Present: See attached Appendix A.

FCC Employees Present:

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

Clay DeCell

Dante Ibarra

Meeting Summary:

1. Opening Remarks, Introductions, Identification of DFO, volunteer to take minutes

Jack Wengryniuk, Chair of IWG-3, opened the meeting with a statement of objectives for the meeting and asked all participants to introduce themselves. Participation of a DFO was confirmed. As no participant was willing to volunteer to take minutes, the Chairman resigned himself to this task.

1. Approval of Agenda

The agenda in DocumentIWG-3/055r1 was approved.

1. Approval of minutes from sixteenth IWG-3 meeting:

The minutes of the previous meeting as contained in IWG-3/054r1 were approved without comment.

1. Other meetings of interest since last meeting of IWG-3

No meetings were identified since the last meeting of IWG-3 on 4 September.

1. Current status of WRC-19 AIs under IWG-3 and discussion of draft proposals
2. Agenda Item 1.5: As a consequence of discussions at the last meeting and other off-line discussions it was understood that there would not be consensus on a single proposal for this agenda item. As such, there were three different versions of proposals to consider that would represent Views A, B and C. The View A proposal was the one originally developed by Viasat and Chris Hofer introduced some small changes to that document (IWG-3\_051R3). Some of the same concerns previously expressed were reiterated at the meeting, but understanding that this proposal would represent View A there was no attempt made to change the document.

The View B proposal (document IWG-3\_056), developed by Intel, was introduced by Jayne Stancavage. Some comments and questions for clarification were asked after the introduction which were addressed, along with one correction, by Ms. Stancavage. As with the View A proposal, with the understanding that this proposal would represent View B, there was no attempt made to change the document.

The View C proposal (document IWG-3\_057), developed by Iridium, was introduced by Damon Ladson. As with the other cases, some comments and questions for clarification were asked after the introduction which were addressed by Mr. Ladson. One error in the proposal was also identified which Mr. Ladson acknowledged and would correct. As with the other two cases, with the understanding that this proposal would represent View C, there was no attempt made to change the document.

Some support was expressed for all three views/proposals and the Chair pointed out that narrative text that explained each of the three views would be needed as part of the cover document for these three proposals at the WAC. The proponents to each view could be added to that narrative text. It was agreed that this narrative text would be sent directly to Michael Mullinix, our DFO, by 12:00 EDT Friday September 21, with copies sent to the supporting entities for each view.

1. Agenda Item 1.6: Alex Epshteyn, Boeing, introduced the latest version of document IWG-3\_042 (the 9-19-18 version). There were a number of revisions made in this version and Mr. Epshteyn walked the meeting through those changes. Mr. Epshteyn indicated that there was still an ongoing discussion on a point raised by Inmarsat on how to deal with the primary MSS allocation at 39.5-40.5 GHz. It was expected that this issue could be agreed very soon such that the proposal could be sent to FCC by 12:00 Friday the 21st. Chris Hofer of Viasat indicated that Viasat continues to have concerns about how NGSO aggregate limits will realistically protect GSO systems. Therefore, Viasat recommends that the existing Radio Regulations not be changed unless and until this issue is resolved. Viasat asked that the following statement be included in the minutes: “*Viasat* *is concerned that the “consultation meeting” approach being proposed with respect to the aggregate non-GSO limit will not be effective as a practical matter. Namely, there will be no mandatory means of containing non-GSO emissions within the aggregate limit once more than three non-GSO systems deploy. The first three non-GSO systems in operation will operate at the single entry level of up to 3% each. When systems 4 and 5 come online, the 10% limit would likely be exceeded unless the first three systems scale back their operations so that they do not exceed a single entry limit of much less than 3% (e.g., approximately 2% on a pro rata basis ). Under the current proposal, the only way aggregate emissions from all of those systems actually would be reduced would be with the mutual agreement of all of the operators of the non-GSO systems, who have no commercial incentive to scale back their operating systems to accommodate their NGSO competitors or protect their GSO competitors. Absent those competitors reaching such an agreement, the aggregate emissions of the multiple non-GSO systems could well exceed the aggregate 10% limit, resulting in an impermissible level of harm to GSO systems. There would be no requirement that any non-GSO system alter its operations in this case, and therefore no effective remedy for a GSO system that suffers interference. Notably, the BR would have no active role is this process. Unless and until a suitable mechanism is developed, such as a mandatory pro rata reduction in individual non-GSO system emissions, implemented by the BR and the licensing administrations of each non-GSO system, Viasat does not believe that it is appropriate to change No. 22.2. Under the proposal being considered, GSO networks would bear the operational and commercial risk and uncertainty associated with changing the current Radio Regulations in the favor on non-GSO systems.*” Additionally, Mike Mullinix reminded the meeting that the FCC had requested arguments on the viability to change the OOBE limits for GSO in Res. 750. In response, Fernando Carrillo mentioned that the proposal clearly indicated that such actions would be out of the scope of AI 1.6 and of Res. 159.
2. Agenda Item 1.7: Greg Baker (ASRI) introduced document IWG-3\_050R3, which had been converted from a draft proposal into a draft Preliminary View. It was noted that IWG-3 had already agreed, and sent to the WAC, a previous PV for this agenda item, and that PV had made its way to CITEL. It was explained that this new PV accounted for developments that had taken place since the agreement of the previous PV and it was felt that points made in this new PV were important for people to be aware of. This new PV was agreed by IWG-3 to be sent to the WAC. The meeting was also reminded that NTIA had provided a NOC proposal for this agenda item in document IWG-3\_046. The Chair asked the view of IWG-3 on this NTIA proposal and it was agreed that IWG-3 could support this proposal.
3. Other agenda items: An NTIA representative reported that proposals for agenda items 1.2 and 1.3 had made their way through the RCS process and should be arriving at the FCC in the near future. Mr. Mullinix also mentioned that NTIA is moving faster than the WAC in terms of Agenda item 10, i.e., identifying candidate issues for future WRC agenda items, and encouraged IWG-3 members to start identifying the needs of industry in this regard.

6. Future Meetings

Given that the next WAC meeting is not contemplated until circa march of 2019, no specific date was set for the next meeting of IWG-3.

7. Other Business

There being no other issues the meeting adjourned at 12:32 p.m.

Documents Distributed:

IWG-3/042\_9-19-18 AI 1.6 draft proposal

IWG-3/050R3 A.I 1.7 preliminary view

IWG-3/051R3 A.I 1.5 draft proposal from Viasat

IWG-3/054R1 Minutes of the 16th Meeting of IWG

IWG-3/055R1 Meeting 17 Agenda

IWG-3/056 AI 1.5 draft proposal from Intel

IWG-3/057 AI 1.5 draft proposal from Iridium

Public Participation Statement:

Meeting IWG-3/17 (19 September 2018) was open to the public ([DA 18-634](https://docs.fcc.gov/public/attachments/DA-18-634A1.pdf)) and had 16 members, 1 observers, and 3 FCC representatives participating.

Author:

Jack Wengryniuk, Chair IWG-3, prepared these minutes.

**Appendix A: Attendees at September 19, 2018** **meeting of IWG-3**

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| Members | |
| Name | Company |
| Don Jansky | Spacebelt |
| Chris Hofer | Viasat |
| Stephen Baruch | New Wave Spectrum Partners |
| Fernando Carrillo | EchoStar |
| Lou Fiore | AICC |
| Alex Epshteyn | Boeing |
| Veena Rawat | GSMA |
| Damon Ladson | Iridium |
| Stephen Blust | AT&T |
| Gregory Baker | ASR |
| Giselle Creeser | Inmarsat |
| Pat Amodio | Thales |
| Charles Rush | GSA |
| Donna Wang | SES |
| Winston Caldwell | 21st Century Fox |
| Rob Briskman | Sirius XM |
| Jen Oberhausen | CTIA |
| Observers | |
| Name | Company |
| Larry Reed | ARTS for NASA |
| Andy Feltman | Peraton for DoD/CIO |
| Dave Pattillo | SpaceX |
| Gerry Shewan | Telecomm Strategies |
| Kellen Gibson | NTIA |
| Walter Sonnenfeldt | Orbcomm |
| Brandon Hinton | Wiley Rein |
| Shelli Rose Haskins | ACES Inc. for NOAA |
| David Eierman | Motorola Solutions |
| Joanne Wilson | ASRC for NASA |
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| FCC Representatives | |
| Michael Mullinix | |
| Clay DeCell | |
| Dante Ibarra | |
| Larry Olson | |