

## Twelfth Meeting Draft Minutes

**Meeting:** WAC-15, Informal Working Group-3: Space Services (IWG-3)

**Date/Time:** 13 January 2014, 10:00-11:20 am (EST)

**Location:** Teleconference only

**Participants:** (see attachment)

**FCC Employees Present:** (see attachment)

### Meeting Summary:

1. **Introductions:** The Chair welcomed all participants to the twelfth meeting of WAC-15 IWG-3. Chairing the meeting was IWG-3 Chair, smilin' Jack Wengryniuk. All participants introduced themselves
2. **Approval of the Agenda:** A draft agenda had been e-mailed to the IWG-3 subscriber list and the Chair sought its approval. It was approved without changes.
3. **Appointment of minutes taker:** The Chair asked for someone to take minutes for the meeting – Mr. David Weinreich volunteered.
4. **Minutes from the eleventh meeting of IWG-3:** The minutes were approved pending verification of the attendees list.
5. **Summary of meetings of Interest to IWG-3 since December:** No international meetings relating to IWG-3 were held since the last IWG-3 meeting.
6. **Discussion of the status of WRC-15 Agenda items attributed to IWG-3:**
  - **Agenda Item 1.5:** UAS (Res. 153)
    - Document IWG-3 036R1 AI 1\_5 proposal
  - Don Jansky introduced document IWG-3 36R1 that contains a proposal for agenda item 1.5. He noted that additional *resolves* were added to correspond to the contents of the Radio Regulations. It was observed that the phrase saying that UAS be "defined" as FSS stations could be controversial and that a better alternative could be "considered." This change was adopted. Damon Ladson indicated that Iridium still had concerns in separating this UAS issue from ESOMP issues. Mr. Jansky said that changes were made to the proposal to

specifically focus it entirely on Agenda Item 1.5. With that understanding it was agreed to submit the document to the upcoming WAC meeting.

**Agenda Item 1.6** Additional FSS Primary allocations

- Document IWG-3 040 AI 1.6.2. Draft Proposal  
WAC Document 062 that contains the IRAC proposal on Agenda Item 1.6 was first introduced by Wayne White, an observer from NASA. In brief, the NTIA proposal supports “No Change” to the allocations above 14.5 GHz and indicates the general lack of feasibility of sharing between the FSS and the mobile service and radiolocation service in the frequency range 14.5 to 17 GHz.

Document IWG-3 040 was introduced by Kim Baum. An outline of the proposal was presented by Ms. Baum and included changes to and addition of footnotes to Article 5, a change to Appendix 7, and consequential changes to Appendix 30A to open up the 14.5-15.35 GHz band for FSS (Earth-to-space) other than BSS feeder links in all three regions. The proposal also included the indication that FSS terminals would have a minimum size of 1.2 meters in these bands. Ms. Baum further noted that the coordination separation distances mentioned in the included in the IRAC proposal were similar to those already included in Appendix 7. Don Jansky also noted that government systems using these bands operated in limited geographical areas. During the discussion it was further suggested that the proposal in document IWG-3 040 could be expanded to address both Agenda item 1.6.2 and part of 1.6.1. Ms. Baum also clarified that the proposal includes an FSS allocation across the entire 14.5-15.35 GHz band in order to give flexibility in finding the right 250 MHz sub-band to satisfy the agenda item during reconciliation. It was stated that IWG-3 cannot agree to the IRAC proposal in WAC document 062. It was agreed that the proposal in document IWG-3 040 would be modified by Ms. Baum during the course of this week and redistributed for approval via correspondence. The Chair proposed that the group would take stock of where the proposal stood at the end of this week (i.e. CoB Friday January 17) and, barring any strong objections at that time, it would be considered as approved for submission to the WAC meeting on the 27<sup>th</sup>. Should that occur, it was hoped that this proposal can be reconciled with government agencies in time for the upcoming CITEL meeting.

**Agenda Item 1.7:** NGSO MSS feeder links 5091-5150 MHz (Res 114)

Document IWG-3 035R1 AI 1\_7 proposal from Globalstar

Mr. Dave Weinreich gave a brief presentation of the proposal, which had been available to IWG-3 since the previous meeting. The Chair asked if there were any comments. There being no comments, the document was approved for submission to the next WAC meeting.

- **Agenda Item 1.8:** ESVs (Res 909)

Document IWG-3 037R1 AI 1\_8 proposal from Intelsat

Humberto Henrique introduced the revised proposal which modifies Resolution 902 to include additional coordination distances based on maximum EIRP density levels towards the horizon as well as an updated antenna diameter for C-band. These changes are meant reflect current technology and deployment of ESVs. The revised distances proposed are based on a slight modification of the methodology referenced in the previous version of the proposal. Humberto further indicated that transitional arrangements were also needed to accommodate the change from the old to the new separation distance and to determine

how conformance with the proposed modified regulatory provisions would be assured. Bill Rummler indicated that this proposal is not mature because the new approach and the new separation distances still have to be reviewed by ITU-R Working Party 5C. It was agreed to table this proposal until WP 5C comments to WP 4A on the new separation distances. Kim Baum inquired how the reduced antenna sizes would impact sharing with other geostationary satellite systems, from both protection of and constraints to perspectives.

- **Agenda Item 1.9:** in accordance with Res 758, allocations for
  - **1.9.1-** FSS in 7150-7250 MHz (s-E) and 8400-8500 (E-s)
  - **1.9.2** - maritime mobile satellite service 7375-7750 MHz and 8025-8400 MHz
  
- IWG-3 agreed that it supports the IRAC proposal for NOC under agenda item 1.9.2 contained in WAC document 058 and that this would be reported at the upcoming WAC meeting.
  
- **Agenda item 1.12:** extension of 9300-9900 MHz EESS allocation by 600 MHz (Res 651).
- Document IWG-3 041  
 Brennan Price introduced document IWG-3 041 which was a “redlined” version of WAC document 059, an IRAC proposal introduced at the last IWG-3 meeting. Document 041 opposes the primary allocation of an additional 600 MHz to the EESS (active) in the frequency range 9 900 – 10 500 MHz. Document 041 supports a secondary allocation to the EESS in this frequency range and makes the case that a secondary allocation is sufficient to protect EESS operations in this band given the characteristics of the other services using the band and the necessity to protect the radiolocation service. IWG-3 agreed the proposal contained in document IWG-3 041 for submission to the upcoming WAC meeting.

**7.0 Future Meetings**

It was agreed that the next meeting of IWG-3 would be scheduled after the date of the next WAC meeting is set.

**8.0 Other Business**

There was no other business.

ATTACHMENT

Attendees to 12<sup>th</sup> Meeting of WAC-15 IWG-3

Last Name	First Name	Company
Allison	Audrey	Boeing
Amodio	Pat	EchoStar
Baruch	Steve	Spectrum Five
Baum	Kim	SES
Biggs	Mike	FAA
Bonomo	Phillip	Lerman Senter for Lockheed
DeVane	Candice	Intelsat
Dockemeyer	Bob	Delphi

Entz	Kyle	Sprint
Feltman	Andy	Exelis
Hayden	Tom	TLH Consulting
Henriques	Humberto	Telecom Strategies
Hill	Joe	FCC
Jansky	Donald	Jansky-Barmat Telecommunications Inc.
Kolb	Kim	Boeing
Ladson	Damon	Wiltshire Grannis
Nelsen	John	SES
Nguyen	Anh-Thu	Excelis
O'Keefe	Kelly	Access Partnership
Ours	Adam	Intelsat
Persaud	Sankar	FCC
Pineres	Danielle	Wiltshire Grannis
Price	Brennan	ARRL
Rinker	Alan	Boeing
Rosenbaum	Zach	SES
Roytblat	Alex	FCC
Rummler	Bill	Consultant for FWCC
Sanders	Amy	Alcatel Lucent
Sham	Cathy	NASA
Stancavage	Jayne	Intel
Ward	Steve	MMI
Weinreich	Dave	Globalstar
Wende	Chalres	ASRC for NASA
Wengryniuk	Jack	DIRECTV
Whyte	Wayne	NASA