



INTERAGENCY OPERATIONS ADVISORY GROUP

IOAG-15d Minutes

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Prepared by: Barbara Adde, Secretariat

**IOAG-15d Teleconference
20 November, 2012
Minutes**

Attendance

Chair:

Jean-Marc Soula

Secretariat:

Barbara Adde, Stephanie Wan

Members:

ASI: Excused absence

CNES: Jean-Marc Soula

DLR: Martin Pilgram, Rolf Kozlowski

ESA: Michael Schmidt

ISRO: Absent

JAXA: Shigeta Tsutomu

NASA: Phil Liebrecht, Madeline Butler, Bill Horne, John Hudiburg

RFSA: Absent

Observers:

KARI: Sangil Ahn

UK-SA: Peter Allan

Liaison:

CCSDS: Mike Kearney

ICG: James Miller

SFCG: Enrico Vassallo

Subgroups:

LEO26SG: Ricard Abello/ESA

MOSCG: Mike Kearney/NASA, Octavio Camino/ESA

OLSG/ SISG: John Rush/NASA

Agenda:

The IOAG-15d agenda is posted on the IOAG website and as appendix A.

1. Introduction/Opening

The Chairman called the meeting to order, stating that the agenda is planned to focus on preparing for IOAG-16 and any necessary actions related to study groups and coordination groups, as well as liaison reports. He noted that there will be additional time for CCSDS at IOAG-16.

2. Approval of IOAG-15c minutes and -15d draft agenda

The draft minutes for IOAG-15c were approved by voice vote and will be placed on the public IOAG website. The draft agenda for this teleconference was approved by voice vote with modifications to presentation order due to participant time constraints.

3. LEO 26 Study Group

Mr. Abello informed the participants that the Study Group has reviewed and accepted the draft Terms of Reference. He noted that the Study Group will present to the IOAG at IOAG-17 in May 2013. The Chairman requested that the Study Group provide the Terms of Reference to the Secretariat to make available on the internal IOAG website. He also asked that Mr. Schulz provide an overview of status and plans at IOAG-16.

AI 15d-01: LEO26SG co-chairs to distribute the LEO26SG TOR's to IOAG members.

[Assigned to: LEO26SG co-chairs; due date: 30 November, 2012]

4. SFCG Liaison Report

Mr. Vassallo provided a presentation, which is also available on the website, which included the SFCG's Lunar and Martian models, as well as International Telecommunication Union (ITU) Agenda Items (AI) of concern to IOAG.

Mission Models

Mr. Vassallo noted that while there are discrepancies between the IOAG and SFCG mission models, the purposes of these two models are different. He suggested that the SFCG should stop comparing them because it is not productive. He also recommended that the IOAG should continue updating its mission model and submitting it to the SFCG; in turn, the SFCG could provide after each annual meeting a spreadsheet with information about the Lunar and Martian missions included in the SFCG database. The database can be used to prepare Excel spreadsheets; he will provide a sample at IOAG-16 so the members can decide what works best for IOAG.

ITU Agenda Items

- a. AI 1.1 "Additional spectrum for International Mobile Telecommunications" targets the bands 2025-2110 MHz and 2200-2290 MHz, among others.
 - High density IMT systems and space services cannot share the band. Studies done in the past are still valid.
- b. AI 1.9.1 and 1.9.2 "Possible new allocations to fixed-satellite service and maritime-mobile service" targets the bands 7145-7235 MHz, 8025-8400 MHz and 8400-8500 MHz.
 - Initial analysis indicated huge (800 km) stations coordination distances – reduced performance systems for new allocations just been provided, revised analysis will be performed.
- c. AI 1.10 "Possible additional allocations to mobile-satellite service" targets the bands at 22 GHz (just obtained) and 26 GHz.

- No parameters for new allocations provided but sharing with mobile systems is not expected to be possible.
- d. AI 1.12 “Extension of the Earth exploration-satellite (active) allocation at 9 GHz by up to 600 MHz” could affect the 8400-8500 MHz reception.
- Need to impose transmission constraints to avoid RFI at space research stations.

Some agenda items are for the IOAG benefit:

- a. AI 1.11 “Primary allocation for the Earth exploration-satellite service (Earth-to-space) in the 7-8 GHz band” was proposed by SFCG to have a backup in case the 2 GHz band becomes unusable in future.
- It is recommended to avoid the deep space 7145-7190 MHz band. EESS can share with near-Earth space research systems in the 7190-7235 MHz band.
- b. AI 1.13 “Examine the possibility for increasing the 5 km distance limitation (space-to-space) use for proximity operations” was proposed by SFCG to allow the use of the EVA frequencies (410-420 MHz) also for rendezvous and docking.
- This AI is not expected to receive too much opposition

The SFCG position for all agenda items at WRC-15 is available in the public SFCG web pages ([https://www.sfcgonline.org/Public Documents/SFCG_WRC_Objectives_SFCG-32_Public.pdf](https://www.sfcgonline.org/Public_Documents/SFCG_WRC_Objectives_SFCG-32_Public.pdf)).

In closing, Mr. Vassallo said that the SFCG goals involve the same bands of interest to the IOAG, and therefore support the IOAG goals.

The Chairman requested the SFCG’s meeting schedule so that it can be added to the IOAG online calendar for reference. Mr. Vassallo said that there are many meetings but the next critical ITU meeting is in April; he urged all agency spectrum managers to start working on these issues immediately.

AI 15d-02: Each IOAG delegate to do internal coordination with spectrum managers in his own agency on the subjects brought to the attention of IOAG members by the SFCG liaison, with reference to the agenda items of the ITU WRC-15; then to report on findings, agency position and proposals at IOAG-16. [Assigned to: all IOAG delegates; Due date: 14 December, 2012]

AI 15d-03: Analyze the discrepancies between IOAG and SFCG mission models, as brought to the attention of IOAG members by the SFCG liaison; then make corrections and updates as part of the agency annual update of the IOAG reference tables which is expected at IOAG-16. [Assigned to: all IOAG delegates; Due Date: 7 December, 2012]

5. MOSCG Preliminary Plans & Discussion

Mr. Kearney reported on the status of the IOAG AI’s related to the Mission Operations Study Coordination Group. Regarding AI 15c-03, he discussed a work plan period beginning next spring. He noted that some IOAG agencies may not think the IOAG should include mission operations. The chairman stated that the IOP would nonetheless need the relevant information so that it may take an action, which could include forming another group to address this issue. Mr.

Kearney concurred; he will work with the Secretariat to adjust the text of his presentation to reflect this.

Mr. Liebrecht stated that NASA supports Mr. Kearney's position. Mr. Schmidt indicated that the IOAG is the right body to address mission operations, but it currently does not have a mandate to take this on, which would be needed in order to get the necessary resources assigned. Mr. Kearney's proposal includes contacting human spaceflight missions; Mr. Schmidt does not concur. It was agreed that this would be discussed at more length at the IOAG-16, when more information is available.

AI 15-04: Draft the letter proposed to request selected programs (still TBD) to provide their assessment of the decisions to be evaluated by the MOSCG, to be sent to the IOAG Secretariat for distribution to all delegates. [Assigned to: M. Kearney/NASA MOSCG co-chair; Due date: 7 December, 2012]

AI 15-05: Each IOAG delegate to nominate participants to the MOSCG. [Assigned to: all IOAG delegates; Due date: 7 December, 2012]

With this presentation, AI 15c-02 and -03 are to be closed as obsolete.

6. SISG Preliminary Plans & Discussion

Mr. Rush reported that the SISG co-chairs met in Darmstadt last week for discussions; presentation charts are not yet available. The objectives for the task were approved: 1) to validate the SISG architecture document which reflects the original intent of the SISG. He said that a work plan will be reviewed by 1 March, 2013 by the SISG members who have not been involved in writing the architecture. Regarding the IOP, he said that the expectation is to seek agreement to begin to implement an architecture by 2016. The SISG co-chairs will make a full presentation at IOAG-16, which should be more generic and not just limited to a set of missions. The Chairman reminded the participants that the IOP-1 made the decision to implement SLE some twelve years ago and SLE deployment is not complete among all IOAG members. On SSI, the recommendations need to be carefully formulated to be acceptable by all. Additional time was requested on the IOAG-16 agenda for SISG to allow for discussion. Mr. Rush requested that a full list of SISG members be provided to the co-chairs as soon as possible.

The Chairman requested that AI 15c-03 be extended to the IOAG-16.

7. Status of e-poll Chairmanship nomination

The Chairman noted that the e-poll for the nomination of the next IOAG Chair closed today. DLR, CNES, JAXA and NASA have no candidate. Mr. Schmidt reported that he has spoken with ASI and they do not offer a candidate. Therefore, ESA offers Mr. Schmidt as a candidate. The Chairman requested an e-poll to be opened to confirm this nomination. The Chairman said that he will chair IOAG-16 and begin to turn over duties to the new chairman around IOAG-17.

AI 15d-06: IOAG Secretariat to initiate an e-poll to approve the nomination of Mr. Schmidt as the next Chairman of IOAG. [Assigned to: IOAG Secretariat; Due date: 21 November, 2012]

8. IOAG-16 Logistics

Ms. Adde and Ms. Wan presented the logistics for IOAG-16 to be held at the Kennedy Space Center (KSC) in Cape Canaveral, Florida. The Secretariat will distribute all necessary information regarding access to KSC and other logistics with the agenda to all registered participants. There will be a no-host dinner on Thursday, 13 December. The Chairman noted that one of the topics to be discussed is the member and observer attendance at IOAG meetings. He said that he has been in discussions with the Canadian Space Agency, but there is no decision yet on their participation as an observer. In response to a query, the Chairman will review the template for the agency presentation used at IOAG-15 and provide any updates for IOAG-16.

AI 15d-07: IOAG Secretariat to distribute instructions to all registrants on ID requirements to access KSC for IOAG-16. [Assigned to: IOAG Secretariat; Due date: 30 November, 2012]

AI 15d-08: IOAG delegates and Sub-Group co-chairs to review and make suggestions for changes on the IOAG-16 agenda; also report on timing for presentations or personal constraints. [Assigned to: All IOAG delegates and Sub-Group co-chairs; due date: 30 November, 2012]

9. IOP-3 Preparations

The Chairman referred to the draft agenda discussed at the previous teleconference. He noted that it is on the website for delegates to review and provide comment. It will be discussed at IOAG-16. Members should confirm the availability of their senior representative during the dates of 25-27 June. The dates of 13-17 May should be held for IOAG-17. Mr. Allan reported that he will be the UK-SA delegate.

AI 15b-08: A new due date was set for 7 December, 2012.

10. Miscellaneous

ICG-7

Mr. Miller provided an overview of the results from the 7th annual meeting of the International Committee on Global Navigation Satellite Systems (ICG-7), which was held in Beijing, China on 4-9 November. He noted over 200 delegates attended, with the IOAG seat next to the ITU representative. He will upload the attendance list to the IOAG website so that all agencies can identify their counterparts. Mr. Miller stated that this year the European Union and Japan also provided presentations on Space Service Volume; he is working towards similar presentations from Russia and China regarding their systems for a clearer understanding towards compatibility. The next annual meeting will be held in Dubai the week of 11 November, 2013, and he urged additional delegates from the IOAG to participate, if at all possible. He noted that Mr. Younes has expressed interest in attending. Mr. Miller will have a more indepth presentation at IOAG-16.

The Chairman thanked him and expressed regret that he had not been able to attend the ICG-7 and hoped that the new chairman can attend next year's meeting.

AI 15c-05: Re-open this action to provide mission model inputs with a new due date of 17 May, 2013.

CCSDS

In the absence of the CCSDS liaison, Mr. Peccia, Mr. Kearney reported on the recent CCSDS meeting in Cleveland, Ohio the week of 15 October. He provided a list of active standards and missions supported.

Other Open Actions

The status of the following actions has been changed and should be updated on the website:

AI 15-07 and 15-16 are closed as obsolete

AI 15b-09 to be closed with contacts established before IOAG-16

AI 15c-01 changes the due date of the SISG presentation to IOAG-16

AI 15c-02 to be closed with Mr. Kearney's presentation on MOSCG. His updated file will be attached to the AI on the website and as part of the IOAG-15d documentation.

AI 15c-04 is to be re-opened with a new due date of IOAG-17

The Chairman thanked all participants and adjourned the meeting.

Appendix A

IOAG-15d Meeting / Teleconference
Tuesday, 20 November, 2012
13:00 – 16:00 UTC
AGENDA

Time (UTC)	Presenter	Agenda Item	Action Items
13:00 -- 13:05	Soula	1. Introduction/Opening	
13:05 – 13:10	All	2. Approval of IOAG-15c minutes and - 15d draft agenda	
13:10 – 13:15	Secretariat	3. Status of e-poll – Chairmanship nomination	
13:15 – 13:30	Abello	4. LEO 26 Study Group Updated Terms of Reference, plan of work, schedule	
13:30 – 14:00	Kearney/Camino- Ramos	5. MOSCG Preliminary Plans & Discussion (Objectives, plans of work and draft decisions expected from the IOP)	AI 15c-02, 15c-03
14:00 – 14:20	Schulz/Rush	6. SISG Preliminary Plans & Discussion (Objectives, plans of work and draft decisions expected from the IOP)	AI 15c-01, 15b-03
14:20 – 14:40	Vassallo	7. SFCG Liaison Report	
14:40 – 15:10	Liebrecht Soula	8. IOAG-16 Preparation / Logistics - Agenda of IOAG-CSSDS joint meeting - Agenda of IOAG-16	
15:10 – 15:25	Soula	9. IOP-3 Preparation - IOAG-17 Preparation	AI 15b-08, -09
15:25 – 15:55		10. Miscellaneous - ICG-7 Debrief (Beijing meeting) - CCSDS Debrief (Cleveland meeting) Other Open Actions	AI 15c-04, 15-07, 15-16, 15a-01, 15c-05
15:55 – 16:00	Soula	11. Summary/ Closing	

Appendix B

IOAG-15d Action Items

AI 15d-01: LEO26SG co-chairs to distribute the LEO26SG TOR's to IOAG members.
[Assigned to: LEO26SG co-chairs; due date: 30 November, 2012]

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