



INTERAGENCY OPERATIONS ADVISORY GROUP

IOAG-14d Minutes

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**Prepared by: Barbara Adde, Secretariat
Date: 14 November 2011**

**IOAG 14-d Teleconference
25 October 2011**

FINAL MINUTES

Attendance:

Chair: Jean-Marc Soula
Secretariat: Stephanie Wan

Members:

CNES: Jean-Marc Soula
DLR: Martin Pilgram
ESA: Michael Schmidt, Gian-Paolo Calzolari
JAXA: Hiroshi Inoue
NASA: Phil Liebrecht, Les Deutsch, Wallace Tai, Madeline Butler, Nathaniel Wright

Observers:

KARI: Sang Il Ahn
UKSA: Peter Allan

Liaison:

CCSDS: Mike Kearney

Agenda:

See Attachment 1. The agenda is also available on the IOAG website (www.ioag.org).

Introduction/Opening:

The Chair opened the meeting and welcomed all participants. The agenda, which focuses on the follow-up discussions to the establishment of priorities, preparation for IOAG-15, and minutes of the 14c teleconference, was accepted without comment.

2) Approval of IOAG-14c minutes

The Chair noted that he has mainly received inputs for the IOAG14c minutes from ESA and commented there were no major issues. No issues were raised and the minutes were approved.

3) Discussion on Priorities

The Chair commented that he has received inputs for Action Item 14c-02 from several agencies, and the priority rankings were aggregated into a color-coded table, and the priorities analyzed based upon the average. The green color represents inputs provided by several agencies as potential top 10 priorities during IOAG-14 in London. The Chair noted that inputs are still missing from RFSA and ISRO, and invited observers to provide inputs if they wish.

The Chair noted that while the average provides an indication on whether it is a high priority for most delegations, there is a deviation from JAXA inputs. Furthermore, the Chair questioned whether it is possible to form an agreement without RFSA and IRSO inputs. JAXA noted there are no plans at JAXA in the LDPC and data link security area, so they are not high priorities for them. The Chair commented that there was agreement on Delta DOR between NASA, JAXA and ESA. However, he pointed out that ASI's lower priority was mainly due to the implementation plan as opposed to ranking for standards. It was noted that since the top 5 priorities appear to be in agreement, those could be discussed and considered for the message that should be conveyed to CCSDS.

The Chair summarized that out of the green priorities, the top 5 are: Conjunction message, New Codes (3 blue books for LDPCC, SCCC and DVB-S2), Delta DOR, SM&C, and Service Management. However, he questioned whether the group needed inputs from RFSA or ISRO prior to submitting priorities. The Chair suggested and all the delegates agreed to have the first message reflect the top 5 services, then the rest could be put on the agenda for more discussion at IOAG 15.

One of the participants asked whether the group could allocate resources for CCSDS to do the work. The Chair noted that this needs to be discussed since the top 5 contains a message not just for CCSDS, but also for top management.

Mr. Calzolari suggested looking at the full table to see what fits into current plans based upon the status of the top items, and whether agencies can commit resources. There was concern that the group may provide top priorities for standards, but agencies cannot commit to providing enough manpower or resources.

The Chair noted that CCSDS does not need final and complete rankings at this stage, but mainly needs to understand the main priorities now before they meet for their Fall meeting. When discussing product agreements in preparation with CCSDS and IOAG, the IOAG will need to populate the product agreement with priorities and should finalize at IOAG-15. While the group then needs to agree on the complete table, the Chair recommended spending some time to consider some reinforcement messages on Service Catalog #1 (SC#1), where the group has clear agreements on what is needed for the future. This can guide the IOAG's respective managements on committing resources.

Concerning the TBW items in SC#1 - blue highlights, where there was good evaluation on the inputs and the average and deviation are quite low, he summarized that if IOAG has to put a message to CCSDS, it would be Offline Radiometric Service (CORS) and Generic Transfer File Service (CFXS). He noted that this is a confirmation of a good agreement on the CORS and CFXS. The Chair suggested the two can be considered as part of the top 10 priorities; however, the IOAG conveyed on several occasions to CCSDS that those two are the most urgent out of the SC#1 but has not seen products from the CCSDS working group.

The Chair considered more discussions may be needed on other TBW items in SC's since this is the first time IOAG interwove SC#1 and SC#2 services, but this also requires the contribution from all agencies. Since JAXA did not vote on the SC #1 and 2, and ASI, DLR and CNES on SC #2, he asked whether the agencies will have any inputs before IOAG-15.

JAXA confirmed that their inputs would be provided prior to IOAG 15. DLR noted that SC#2 is more or less on deep space missions, and CNES considered abstaining. In terms of ranking and priorities, the Chair then requested that all agencies made sure to provide inputs before IOAG-15. There were no comments or objections to the Chair's proposal.

In understanding why CFDP was on the list of priorities and whether it should stay on the list of standards to develop, NASA noted that the agency was using CFDP (such as in LRO), but lacks a consistent standard. The Chair suggested the members update the infusion table to reflect the plan for deployment of standards in considering priorities for IOAG and the needs of the future. Mr. Kearney noted that the understanding was when a standard went on priority list, it would stay there as a necessary standard and not "retire it" too early. He commented that CCSDS expects it to be on there until deployment phase and not to be removed. It was emphasized that if it is priority 1 for development, then it should also be priority 1 for deployment; ie., it should be on the priority list throughout the life cycle.

The Chair proposed that CFDP can be added to the top priorities message of IOAG to CCSDS. However, the other existing standards, GMSK High Rate Telemetry & Ranging and SOIS Enhanced Wireless, RFID, Plug and Play will not be part of the same message. In trying to understand the differences between the two SOIS Services (Avionics) and Enhanced Wireless, RFID, Plug and Play, the Chair asked all agencies to consider the differences and to revisit the 2 rows for IOAG priorities on SOIS.

The Chair commented that the lowest priorities are in agreement for some of the the SC#1 and SC#2 standards. He questioned if the IOAG could identify all the services that have an average of 3 and a deviation to 0 in the message to CCSDS: Currently there are 3 services that have been evaluated and in good agreement in for low priority in SC#1. While DLR agrees that providing the 5 top and lowest priority would give an indication to CCSDS, the Chair eventually suggested holding off since only 4 out of 8 agencies provided inputs. The Chair proposed an action to remind to provide inputs.

AI 14D-01: Members to provide updates or inputs on the priority table and on all the reference tables in advance of IOAG-15. **Due date:** November 18, 2011

The Chair also proposed an action item to send a message to CCSDS/Mr. Hooke and CCSDS/Mr. Kearney on the discussions, stating IOAG's first priorities for the moment, and propose to have more discussions at IOAG-15 before putting it in the product agreement.

AI 14D-02: Chair to send message to CCSDS/Hooke and CCSDS/Kearney on IOAG priorities and on what needs to be done at IOAG- 15. **Due date:** November 2, 2011

Mr. Calzolari questioned whether CCSDS has certain of the highest priority services already at work. Mr. Kearney noted that the official CCSDS liaison would need to respond, since he does not know the details.

Mr. Tai noted that the CSTS service control on the interface should be added under the list of blue items. He noticed that it was not indicated in the SC but is missing from SC#1.

The Chair commented that it was not missing; in IOAG-13 it was agreed that we do not need to command and control counterpart service of the EDM. It was concluded that it was not required, and SM should be used instead.

The Chair noted that all the action items on both sides reflect there is misalignment in the CSTS WG of CCSDS with the IOAG priorities.

The Chair asked ESA/Schmidt whether the additional services of the “forward and return” yellow boxes are part of SC#2. ESA/Schmidt noted that they are part of services, and what was done in the highlighted magenta part is located at the bottom of the table.

NASA/Tai noted that the green has the Forward Last Hop Delivery. The Chair suggested that the priorities could be more specific. NASA/Tai recommended not having a mixture on providing standards on mapping between the two, as it would be confusing to put it on the same list as the top 10 priorities and service catalogues.

AI 14D-03: For the preparation for IOAG-15, the Chair will provide revisions to the table to differentiate the candidate Top 10 and the SC’s priorities, and send the revised table to all the delegates. **Due date:** November 4, 2011.

4) IOAG-15 Agenda

The Chair noted that in preparation for the IOP-3, members should provide list of items to be raised before IOP-3 (AI IOAG 14c-04). He noted that IOAG needs to have the topics from IOP-2 be put on the agenda as well. Any additional items, such as mission operations, optical links, liaison with other communities, like the ISECG can also be noted on the agenda.

There has been an agreement with ISECG to have further interactions with them next year. The Chair noted that IOAG website provided a link to the ISECG Global Exploration Roadmap and noted that IOAG was invited to attend an ISECG meeting.

AI 14D-04: Delegations to look at ISECG roadmap and see how IOAG can provide further contributions. **Due date:** IOAG-15

The Chair further mentioned that he has spoken to SFCG/Enrico Vassallo, and commented that there should be an item for the liaison at the IOAG-15 meeting. However, he is not sure how to get inputs from all the agencies, and was not sure what to give back to SFCG.

The Chair raised the issue of the IOAG reference tables. He noted that this was an action one month before the December meeting. He reminded all delegations to do an update, and it is problematic that several agencies that have not provided input on communication assets and mission models.

The Chair mentioned that the agenda will concentrate on the key issues after the IOP 2, main objectives, and additional activities we have developed. This would include the OSLG report and what are the next steps and bring to the attention of the IOP-3. Liaisons will be

on agenda. The Chair noted that he will work with the IOAG Secretariat to draft the IOAG-15 agenda next week.

AI 14D-05: Chair to work with Secretariat on IOAG-15 agenda to distribute by next week.
Due date: November 4, 2011

ESA/Schmidt raised the question about whether the chairmanship will continue until IOP-3. The Chair commented that he was now not sure when IOP-3 will occur, but welcomed further issues or questions to be discussed during IOAG-15.

5) IOAG-15 Preparation / Logistics

The Chair pointed out that the IOAG-15 meeting will not be at the CNES center, but at Cité de L'Espace, a space museum in Toulouse east of the city. A room is reserved with internet, and is currently looking into videoconference facilities. The Chair will verify about webex capabilities, and provide more information soon. The Chair welcomed all delegates to contact him if there are any problems or require suggestions on hotels.

The Chair noted that emails were sent to delegations requiring visas. However, there has not been any response from China, India, or Russia, so he was not sure if they will attend. He commented that there should be no problem with colleagues from JAXA. The meeting will end on the afternoon of the 8th, therefore providing Monday and Friday the time to travel or to have side meetings.

The Chair reminded the delegates that registration is opened and the early identification of participants will help in the preparation of IOAG-15.

6) Miscellaneous

The Chair asked about the status of product agreement since the delegations at the IOAG-14c teleconference agreed on the format. He had given the action item to Mr. Calzolari on the modifications of the IOAG-CCSDS product agreement with CCSDS to have the services and standards match. Mr. Calzolari noted that he has made some documents and it is on the agenda item for the CCSDS meeting on 5 November to discuss the most reliable product agreement for CCSDS side.

The Chair noted that he expects an update from Mr. Calzolari in mid-November, after the CCSDS working group meetings, in advance of the IOAG 15 meeting, in order for all delegations to review the status.

The Chair noted that he has already mentioned his concern about ISRO and RFSA, as he has invited both to the IOAG-15 but received no reply.

In regards to SpaceOps, the Chair mentioned that there was an action 14c-07 for the Chair to draft an IOAG overview and perspectives with the help of Mr. Liebrecht who then confirmed volunteering to provide the first draft and send it to the Chair by the end of the week.

The Chair asked whether CCSDS would prepare an abstract on mission operations. Mr. Kearney noted that the subject was not mature enough to be presented at SpaceOps, though the ideas can be presented internally; it is best to address the topic after IOP-3. The Chair suggested closing the action 14c-08 and it was agreed that the topic would be presented at the next SpaceOps when it was more mature.

The Chair raised the question on the status of the Optical Links Study Group (OLSG). He noted that the group is currently preparing for the next IOAG meeting, and could have materials by SpaceOps 2012. NASA noted that OSLG would have plenty of material by then since the group will soon complete their activities. The Chair asked whether ESA and NASA could contact the OLSG liaisons.

One question raised by the IOAG delegation was whether there was a template to follow in regards about what to expect in the agency report. The Chair agreed to provide a template to give common points of interest to share.

AI 14D-06: Chair to propose a format template for IOAG-15. **Due date:** November 18, 2011

7) Summary/ Closing

Chair concluded the meeting and wished to see everyone in Toulouse for the IOAG-15.

**IOAG-14d Teleconference
Tuesday, 25 October, 2011
12:00 – 14:00 UTC**

FINAL AGENDA

**Time (UTC) Presenter Agenda Item
Action Items to be addressed**

as part of the discussion#

12:00 – 12:05	Soula	1. Introduction/opening	
12:05 – 12:10	All	2. Approval of IOAG-14c minutes	
12:10 – 13:00	Soula	3. Discussion on Priorities	14b-05, 14c-02, 14c-03
13:00 – 13:25	All	4. IOAG-15 Agenda	(ISECG RMP), 14b-10, 14c-04, 14c-05
13:25 – 13:35	Soula	5. IOAG-15 Preparation / Logistics	14c-06
13:35 – 13:55	All	6. Miscellaneous	14c-01, 14c-07, 14c-08
13:55 – 14:00	Soula	7. Summary/ Closing	

IOAG-14d Action Items

AI 14D-01: Members to provide updates or inputs on the priority table and on all the reference tables in advance of IOAG-15.

Due date: November 18, 2011

AI 14D-02: Chair to send message to CCSDS/Hooke and CCSDS/Kearney on IOAG priorities and on what needs to be done at IOAG- 15.

Due date: November 2, 2011

AI 14D-03: For the preparation for IOAG-15, the Chair will provide revisions to the table to differentiate the candidate Top 10 and the SC's priorities, and send the revised table to all the delegates.

Due date: November 4, 2011.

AI 14D-04: Delegations to look at ISECG roadmap and see how IOAG can provide further contributions.

Due date: IOAG-15

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