



INTERAGENCY OPERATIONS ADVISORY GROUP

IOAG-22a Meeting Minutes

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Prepared by: Madeleine Bronstein

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IOAG-22a Meeting Minutes
Teleconference
12 September 2018

Attendance:

Chair: Michael Schmidt

Secretariat: Barbara Adde, Madeleine Bronstein

Members:

ASI: Fabio D'Amico

CNES: Jean-Marc Soula

CSA: François Alain

DLR: Martin Pilgram, Rolf Kozlowski

ESA: Gian Paolo Calzolari, Margherita Di Giulio

JAXA: Hirokazu Hoshino, Tsutomu Shigeta

NASA: AJ Oria, Catherine Barclay, Dan Smith, Dave Israel, Les Deutsch, Phil Liebrecht,
Wallace Tai

Observers:

KARI: Park Durk-Jong

UKSA: Matthew Cosby

Liaisons:

CCSDS: James Afarin

ICG: James Miller

SFCG: Enrico Vassallo

Presentations are available at: www.IOAG.org.

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Introduction: Michael Schmidt

The Chairman thanked the delegates for their participation and asked for a roll call. He then provided the agenda for the meeting and asked for comments. There were no comments and the meeting proceeded.

Status of Open Action Items and eVotes

Actions:

AI 21a-01: Action closed.

AI 22-02: Action closed.

AI 22-03: Action closed; will resume conversation in the future. Mr. Soula asked whether DLR had expressed interest in participating. DLR responded that they would participate in all testing that they can support.

AI 22-05: Action remained open.

AI 22-12: Agencies confirmed their participation in the leadership forum. Confirmation on the forum topics and delegate briefings are ongoing. Action remained open.

AI 22-13: Action remained open.

AI 22-14: Action closed.

AI 22-15: Action closed.

AI 22-16: Action remained open.

AI 22-20: Action closed.

AI 22-21: Action remained open. Mr. Calzolari reminded delegates to provide feedback on the poll.

AI 22-23: Action remained open.

eVotes:

ICPA: Delegates reviewed responses. Mr. Soula noted that SCWG will take the comments into account for the revision of the SC and establishing a plan on how to address the highest priorities. Due date extended.

DDOR: Delegates reviewed responses. Due date extended.

Offline RMD: An action was assigned to the SCWG to take the results of the eVote into account and provide a recommendation to the IOAG on the path forward.

Mr. Alain and Mr. Cosby noted that they do not have access to the eVotes. Mr. Alain will be given access as the new CSA delegate and observer agencies will gain access to view eVote results.

The Chairman asked that the eVote due dates be extended to September 20.

Review of IOP-4 Agenda

Day 1

JAXA requested that an overview of the IOAG be included in the first day of the meeting. The Chairman agreed that there will be a short overview in the introduction, but does not want the Leadership Forum to be guided too much by IOAG topics. The Chairman also responded to NASA's proposal to hold the Leadership Forum at the end of the IOP, rather than the beginning. He commented that the beginning is preferable, because otherwise the forum may be driven too much by IOAG topics. Mr. Liebrecht noted that this is okay as long as the topics are defined well. He also concurred with JAXA's comment that there should be an introduction to the IOAG, because many of the IOP delegates are not familiar with the IOAG's history.

Day 2

The Chairman noted that he has been in contact with the ISECG and slides from Ms. Laurini will be included in the IOP report.

Mr. Liebrecht proposed that the presentation should focus on the role of different bands in future architecture planning, so that the delegates can understand why the bands are important at a high level. The delegates agreed that the presentation will be separate from Mr. Vassallo's and focus on what the IOAG vision on the evolution of communications is. The presentation will not be attached to another report in order to avoid confusion about vision for the future and band protection. Mr. Cosby reminded the delegates that the presentation should be at a high level and not too technical for the audience. An action was created for Mr. Liebrecht and Mr. Soula to work together on the presentation proposal.

Mr. Soula suggested that the CMWG be removed from the agenda. The Chairman and Dr. Deutsch responded that there was new information to present since IOP-3. The delegates agreed to reduce the CMWG presentation time to 10 minutes.

Mr. Cosby proposed moving the LCAWG presentation to after the OLSG presentation. The Chairman agreed.

Day 3

The delegates approved the third day of the agenda with no comments.

Review of IOP-4 Leadership Forum Topics

Organization

The delegates discussed whether a subject matter expert on the specific agenda topics or the IOP chair should moderate the forum. The Chairman suggested returning to the subject once the topics have been confirmed.

The delegates agreed to limit the attendees for the forum to the IOP delegate plus 1 additional attendee due to time and space constraints. The Chairman noted there may be room for 1 additional attendee per delegation depending on the final room set up.

Topics

Multilateral Cross-Support versus Bilateral Cross Support: Mr. Liebrecht suggested removing this topic from the agenda, because NASA and other agencies are not recommending multilateral cross support agreements. Ms. Barclay added that five agencies would like an IOAG policy statement that is legally acceptable to operate under, but there is a lot of work ahead on how to do this. Mr. Soula agreed that the topic should be removed, because the outcome of any discussion would be the same as work that has already been completed by the IOAG. Ms. Barclay agreed with Mr. Soula that the job of the SECSWG was to capture the views of the agencies for preferred agreements. Mr. Kozlowski also agreed with Mr. Soula that if the delegates discussed the topic and recommended a multilateral agreement, this would drastically increase the effort of the working group and the agencies. The Chairman agreed to remove the topic from the agenda.

Future Trends for Investments: Mr. Liebrecht noted that he supports this topic for the forum. Mr. Soula expressed concern that the IOP delegates would not have the in depth expertise to discuss this topic and come to a conclusion. The Chairman asked the delegates to revisit and confirm their IOP delegate. Mr. Soula also noted that he did not understand what the objective for the discussion is. Mr. Liebrecht clarified that agency leadership should discuss what future technology they see driving missions and the implications of that for the IOAG and general space communications and mission operations. An action was created for Mr. Liebrecht to propose new wording for the topic.

Traffic Management: The Chairman emphasized that the delegates should have the same understanding of initiatives in this domain related to operations and discuss whether there is a need to involve the IOAG. Mr. Cosby suggested a keynote presentation or another kickoff for the discussion, because the discussion likely wouldn't evolve on its own. Mr. Soula noted that the UKSA Director introduced the topic when he last visited CNES. The Chairman concluded that there would need to be further discussion on how to introduce the topic.

IOAG Productivity: The delegates agreed to move this topic to the end.

Establishment of a Wider Federation of Agencies: The delegates agreed to remove this topic.

Key Technologies for Interoperability: Mr. Liebrecht volunteered to reformulate this.

Future Role of Agencies in a Changing Space Landscape: Mr. Liebrecht commented that any guidance on the role the IOAG would play in the future of cultivating/assisting commercial space members of the global space community and on how the IOAG should engage this community would be helpful.

Expected Outcomes

The delegates concurred without changes.

Review of IOP-4 IOAG Presentation

The edits below were made *in addition* to real-time changes to the presentation. The updated documents can be found on IOAG.org. The Chairman asked delegates to send him any additional smaller changes to language or phrasing.

IOAG Role (Chart #3)

- The Chairman will propose language to include “facilitating communications and operations for future missions.”

IOAG Organization Chart (Chart #6)

- DLR will provide hardcopies of the chart for delegates to refer to at IOP-4.

IOAG WGs (Chart #8-11)

- The Chairman asked for any WG definition edits to be sent to him.
- AI 22-15 was closed.
- Mr. Cosby and Mr. Liebrecht proposed moving the LMWG definition (precursor) to the same chart as the LCAWG.
- Mr. Soula proposed reordering the WGs. The Chairman asked Mr. Soula to send him the proposed reordering.

IOAG Products (Chart #12)

- It was suggested to the Chairman to verbally mention the ICPA.

IOAG Top Priorities (Chart #13-16)

- NASA will send a proposal for priority ordering changes to the Chairman.
- After the IOP-4, IOAG will move to outlining strategic goals rather than top priorities.
- Mr. Soula to reword the protection of certain frequency bands into 2 bullets: defensive and preventative.
- Define core and extended services elsewhere in presentations.
- The Chairman will clarify verbally that high data rates is a high priority.
- Mr. Miller will provide a top priority pertaining to GNSS interoperability.

IOAG Achievements since IOP-3 (Chart #21-23)

- Mr. Liebrecht suggested keeping the achievements in the overview and reviewing them briefly. The points should be mentioned in more detail in later presentations.
- SCWG requested that the Chairman include the additional SCWG bullet points.

Backup Charts

- Mr. Soula recommended to leave IOP-3 resolutions in the backup charts.

Next Steps & Conclusion of Meeting

The Chairman confirmed the due date of September 24 for the IOP data package inputs to include any final changes to the IOAG Executive Summaries and the IOAG Chairman's Presentation. The data package will be distributed to the IOP delegates at the end of October and the working group presentations and resolutions may be distributed later. The liaisons expressed concern that their executive summaries will be out of date due to the CMC and ICG occurring at the end of October and beginning of November. The Chairman noted that updates to the IOP documents can occur through mid-November.

The meeting was adjourned.

Appendix A: Actions

AI 22a-01: SCWG to make a recommendation to the IOAG on a path forward based on inputs to the offline RMD eVote. [Assigned to: SCWG. Due date: 09.10.18]

AI 22a-02: Provide access to observer agencies to view results of eVotes. [Assigned to: Secretariat. Due date: 09.10.18]

AI 22a-03: Propose a presentation for the Evolution of Comms Infrastructure agenda topic. [Assigned to: Phil Liebrecht; Jean-Marc Soula. Due date: 09.10.18]

AI 22a-04: Propose new language for the Leadership Forum topic "Future Trends for Investments." [Assigned to: Phil Liebrecht. Due date: 09.10.18]

AI 22a-05: Provide a hardcopy IOAG Context chart for delegates at IOP-4. [Assigned to: DLR. Due date: 18.12.18]

AI 22a-06: Propose 2 separate bullets for the protection of certain frequency bands (defensive and preventative) for the IOAG Top Priorities. [Assigned to: Jean-Marc Soula. Due date: 24.09.18]

AI 22a-07: Provide a suggestion on GNSS interoperability for the IOAG Top Priorities. [Assigned to: ICG. Due date: 09.10.18]

AI 22a-08: Review updated IOP-4 documents and provide input for discussion at IOAG-22b. [Assigned to: All Agencies. Due date: 09.10.18]

AI 22a-09: Provide final input on data package for IOP-4 delegates. [Assigned to: All Agencies. Due date: 24.09.18]

AI 22a-10: Move the date of IOAG-22b from October 4 to October 9. [Assigned to: Secretariat. Due date: 14.09.18]

Appendix B: Acronyms

ASI	Agenzia Spaziale Italiana
CCSDS	Consultative Committee for Space Data Systems
CMC	CCSDS Management Council
CMWG	Coding & Modulation Working Group
CNES	Centre National d'Etudes Spatiales
CSA	Canadian Space Agency
DDOR	Delta-Differential One Way Ranging (Delta-DOR)
DLR	German Space Agency
ESA	European Space Agency
GNSS	Global Navigation Satellite System
ICG	International Committee on GNSS
ICPA	IOAG CCSDS Product Agreement
IOAG	Interagency Operations Advisory Group
IOP	Interoperability Plenary

ISECG	International Space Exploration Coordination Group
JAXA	Japan Aerospace Exploration Agency
KARI	Korean Aerospace Research Institute
LCAWG	Lunar Communication Architecture Working Group
LMWG	Lunar Mars Working Group
NASA	National Aeronautics and Space Administration
OLSG	Optical Link Study Group
RMD	Radio Metric Delivery
SC	Service Catalog
SCWG	Service Catalogs Working Group
SECSWG	Spacecraft Emergency Cross Support Working Group
SFCG	Space Frequency Coordination Group
UKSA	United Kingdom Space Agency
WG	Working Group