INTERAGENCY OPERATIONS ADVISORY GROUP
IOAG-15a Minutes
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Prepared by: Barbara Adde, Secretariat
Date: 28 February 2012

Attendance:

Chair: Jean-Marc Soula
Secretariat: Barbara Adde, Stephanie Wan, AJ Oria

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

Observers:
UKSA: Peter Allan

Liaisons:
CCSDS: Mike Kearney, James Afarin, Adrian Hooke
SFCG: Enrico Vassallo

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

1. Introduction/Opening:
The Chair opened the meeting and welcomed all participants. The agenda was accepted without comment. The participants represented a quorum of IOAG membership.

2. IOAG-15 Minutes:
The Secretariat reported that the IOAG-15 minutes have been delayed and expect to be provided in draft in the coming weeks.

3. AI 15-02: Approval of Annual Report and Work Plan:
The Chair requested approval of the draft Annual Report and draft Work Plan, previously circulated for review and comment. As no objections were raised, the two documents are approved and the Chair requested the Secretariat to place the final reports on the IOAG public website. He asked that the IOAG delegations provide the Annual Report to their IOP representative, in preparation for IOP3.
Action item 15-02 was then closed.

4. **AI 15-19: Relationship with International Space Exploration Coordination Group (ISECG):**

The Chair reported that he had met by telephone with the ISECG Chair, Kathy Laurini and learned that the next version of their Global Exploration Roadmap (GER) is scheduled for release at the end of 2012. He and Ms Laurini agreed that a teleconference with the IOAG is not necessary at this time. She did, however, offer to that the IOAG could provide text for the next GER regarding IOAG's space communication and navigation coordination. He urged each delegation to coordination with their agency's ISECG representative on these activities. **Action item 15-19 was then closed.**

The Chair also noted that the International Astronautical Congress will conduct a conference in Washington, DC in May, during which the ISECG will conduct sidebar meetings. He recommended that an IOAG representative should make a short presentation at this meeting. Mr. Liebrecht noted that both he and the Secretariat planned to attend; he volunteered to present on behalf of the IOAG.

Mr. Hooke proposed moving toward a proactive role for the CCSDS-IOAG with a joint presentation to the ISECG. Mr. Schmidt confirmed that it was a good idea to present to the ISECG. The Chairman took an action to request an opportunity to present a joint briefing to the ISECG at their May meeting. The topics would include an overview of IOAG, IOP, and CCSDS; the main message would be the common work with CCSDS on architecture and standards for the planned exploration missions. The Chair will also introduce the paper being prepared for the Space Ops conference as background material for the ISECG members. Mr. Hooke and Mr. Liebrecht agreed to help Mr. Soula prepare the presentation.

5. **AI 15-11, 15-12: Development of the Service Management Standard:**

The Chair noted that input has been received from three agencies – CNES, DLR and ESA and has been placed on the internal IOAG website. NASA and JAXA indicated they will provide contributions before March 09.
The Chair will organize all contributions received to serve as a starting point to develop IOAG's position to provide to the CCSDS, with the goal of sending an IOAG statement in advance of their 15 April Working Group meeting.

AI 15-11 "Delegates to provide comments and priorities on Service Management" was left open with a revised due date of March 09.

AI 15-12 "Secretariat to arrange a teleconference focused on Service Management Standards" was left open with a revised due date of Mid-March.

6. **AI 15-03, 15-04: Discussion on commercial/non-member contact information:**

The Chair stated that he has contacted the commercial entities and agencies whose contact information was provided by CNES, ESA, and NASA, in order to collect from them input data for their communication assets table. Responses were received from INTA/Spain, INPE/Brazil, and CSA/Canada; no reply was received from Telespazio/Italy. INPE has provided information. CSA and INTA promised to provide input and both have expressed interest in becoming a member. The Chair provided them with IOAG's Terms of Reference and Procedures, and recommended that they

apply for observer status until IOP3. He also informed them that they would need to make a presentation on their missions, assets and cross support experience at the next IOAG meeting. They may attend other meetings as observers.

Mr. Allan asked if the United Kingdom's International Space Innovation Center may provide information to this communication assets table; Mr. Soula answered that if they have assets that can be used by other agencies, they may be included.

Action items 15-03 and 04 were then closed.

7. AI 15-05, 15-09, 15-13, 15-14, 15-15: Mission Model Updates:

Mr. Oria reported that he has resolved conflicts and duplicate information in the mission models with the relevant agencies and fixed formatting of dates. He then reviewed each mission model for approval by members. Action item 15-05 was then closed.

Mr. Vassallo offered to provide input from the SFCG on mission dates after the June meeting. The ExoMars mission, he said, is scheduled to launch in January 2016. It was agreed that the International Space Station (ISS) should have its own chart with its own missions listed. The Chairman asked all agencies to provide updates to a new ISS page, to reflect anything where cross-support is required, to include experiments as well as docking spacecraft.

Action Item 15-9 requires the removal of old data (more than 2 years) from the mission models. However, the Chairman noted again that several agencies have still not provided updated information. He has sent letters to CNSA, FSA, and ISRO.

The Chairman closed AI 15-13 on consistency of dates (Europe / US) in the tables. He requested that all agencies validate the updated tables before they are displayed. Action Item 15-14 cannot be closed until this is done; the new due date is end of March. Then, the Secretariat may proceed with AI 15-15 and arrange an e-poll to approve the mission models; the new due date is end of March. Mr. Liebrecht stated that any NOAA mission listed is conducted jointly with NASA in some way; therefore, NASA will report them since they may request cross-support. Mr. Vassallo stated that the SFCG deadline is 21 May. Therefore, the Chairman requested an e-poll to validate the tables by mid-April.

AI 15a-01: Mr. Kearney to request information from ISS Program Office. [Due Date: July 31, 2012]

8. AI 15-07: IOAG Infusion Plan Report:

The Chairman stated that this action will be completed within a couple of weeks.

9. AI 15-24: IOAG Top Priorities:

The Chairman stated that the top priorities were addressed in IOAG-15; the goal of action 15-24 is to have a message prepared for CCSDS and for the Agencies' Management, in preparation of the IOP-3. He and Mr. Tai have the action to work on text. This statement is in work and will be provided for review and comment soon.

10. AI 15-21, 15-22, 15-23: IOP-3 Planning & Agenda:

ESA closed AI 15-21 with the information that its Ministry will meet in November 2012. It was agreed that IOP-3 should be held the first or second quarter of 2013. Location is still to be decided;

as an answer to AI 15-22, for members to consider hosting this meeting, only ESA and CNES have made an invitation in Darmstadt or Toulouse (in June, Toulouse Space Show) respectively.

The Chairman proposed a draft agenda which served as support for discussion by members, closing AI 15-23. Mr. Schmidt requested additional time for the OLSG presentation. The Chairman noted that it was put on the last day because it needed extra time. He said that he is flexible on all proposals and would appreciate all participants to review his proposal and provide suggested modifications. Mr. Hooke suggested appointing a drafting committee at the opening of the meeting, to which the Chairman agreed. He also recommended that the meeting should start in the morning, with a social event on the first evening, so that the drafting committee can finalize their report during the second evening. Mr. Pilgram requested that the updated agenda be provided for review. Mr. Liebrecht recommended reviewing the IOP-1 and IOP-2 agendas for comparison.

The Chairman recommended focusing on what decisions the IOP will be expected to take. Mr. Hooke suggested having the recommended decisions pre-coordinated. The Chairman said they will be prepared at IOAG-16, but also would need an additional face-to-face meeting after IOAG-16 and before IOP-3 to finalize these recommendations. This will be discussed also at the next meeting, IOAG-15b.

AI 15a-02: Chairman to revisit the IOP-3 agenda and distribute for review by the Delegates. [Due Date: May 25, 2012]

AI 15a-03: All IOAG delegates to review and comment the proposed IOP-3 agenda, for discussion at IOAG 15b. [Due Date: June 06, 2012]

11. AI 15-26, 15-27: Future IOAG Meetings:

The Chairman proposed dates for meetings for the remainder of the year, with CCSDS and SFCG meeting dates in mind.

He recommended a mini-meeting during SpaceOps in Stockholm, Sweden on 12 June, which was approved by the members. Mr. Inoue confirmed that he will be in attendance. The Chair asked the Secretariat to confirm Dr. Ahn's attendance at SpaceOps.

Mr. Liebrecht proposed hosting IOAG-16 at NASA's Kennedy Space Center on 12-14 December, which was accepted by all in attendance.

The Chairman also proposed 6 September for the IOAG-15c teleconference, which was agreed.

An additional IOAG-15d teleconference in November was discussed, depending on who would be in Tokyo for a SpaceOps 2012 meeting; the tentative date of November 20 was agreed for this meeting.

It was agreed that another face-to-face meeting would be needed in the first quarter of 2013 to finalize IOP-3 plans. This IOAG-17 would be hosted by ESA if IOP-3 were hosted by CNES.

AI 15a-04: Secretariat to confirm member attendance IOAG-15b, either in person or via teleconference. [Due Date: March 30, 2012]

AI 15a-05: Secretariat to send invitations to meetings to heads of delegation, and place schedule on IOAG website calendar. [Due Date: March 30, 2012]

12. AI 14c-01, 15-10, 15-16, 15-20, 15-25: Miscellaneous:

AI 14c-01: this action is not closed.
AI 15-10: this action is closed; CNSA, FSA, ISRO letters have been sent.
AI 15-16: Coordination with SFCG is ongoing; an e-poll needs to be held before distribution of the mission models on the website and to the SFCG.
AI 15-20: Only CNES and DLR have provided input on the OLSG report; this action is closed.
AI 15-25: this action is closed; both the IOAG and OLSG papers have been accepted. The Chairman has placed a draft paper and a proposal for sharing the work on the website. He requested support in preparation of the paper and making the presentation. He will send the material to all heads of delegation.

13. Summary/Closing:
The Chairman closed the meeting after reviewing the open actions.

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Action Items

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