

International Academy of Astronautics

Commission V Report on Meeting

**Paris
Monday 23, March 2015**

Attendance:

Corinne Jorgenson (Chair), Isabelle Duvaux-Bechon (Acting Secretary), Nicola Rohner-Willsch, Geir Hovmork, Marius-Ioan Piso, Oana Neagu, Serge Plattard, Alexander Soucek, Ray Williamson, Max Grimard, Bernhard Schmidt-Tedd and Oleg Ventskovsky.

1. Welcome

After a welcome from the Commission V Chair Corinne Jorgenson, meeting participants introduced themselves.

2. Agenda Approval

The meeting's agenda was adopted as distributed by e-mail on 20 March 2015. It is available on the IAA website.

3. Adoption of Commission V Meeting in Toronto, Canada (September 2014)

The minutes of the previous Commission V meeting will be circulated by e-mail for approval.

4. IAA Cosmic Studies

Discussion took place on the distribution of studies that are free online for academicians, and whether there could be a policy for access by international audience to ensure dissemination of the results. If people have to pay, some argue they will not buy. Serge Plattard indicated that some journals propose some articles for free for a limited duration and that IAA could explore this.

4.1 Current Studies

4.1.1 International Cooperation on Space Weather (SG 5.9)

We are now 2-3 years into the study, Susan McKenna-Lawlor propose last year to co-chair the study. As she is in Commission I, the question is whether the study should formally go into Commission I with some participants from Commission V.

4.1.2 Orbital Debris Removal: Legal, Political, Policy, and Economic Considerations (SG 5.10)

Ray Williamson presented the status of the study group. There are 3 co-chairs (Stephan Hobe, Lesley-Jane Smith and Ray Williamson). Sections in the study will include policy & political issues, on-orbit servicing and just-in-time collision avoidance. The first draft of the “legal” section is nearly complete, and still very little is available on the political, economics and policy sections. The full draft for review will be available by the end of 2015.

4.1.3 Comparative Assessment of Regional Cooperation in Space: Policies, Governance and Legal Tools (SG 5.11)

Corinne Jorgenson presented the status of the study on behalf of the Chair and co-chairs K.R. Sridhara Murthi, Ciro Arévalo and Elisabeth Back-Impallomeni. There has been a change in the composition of the group in the last 6 months. The final draft is planned to be available in July 2015 and the study ready for publication in October 2015, which might be too short for peer review. The study should not be a compilation of papers but represent original work with summary and conclusion for each region. Guidelines for study should be followed and the various steps of approval should be respected.

4.1.4 Dynamics of Space Exploration: Strategies and Future Outlook (SG 5.12)

Serge Plattard took the chairmanship from Pascale Ehrenfreund. The March 2015 report details the status of the study. The aim is to have a more collective/integrated approach and to avoid that if one fails it jeopardize the rest. They would propose a mechanism like a World Space Exploration Council to reconcile all interests at high level. The first new entries are expected for April 2015, review will be by Fall 2015, maybe it will be the complete draft, it will depend on entries arriving in April. The report should be more quantitative, with budgets, goals, deadlines,

examples, as well as readable and usable. They would like more contributions for conclusions and a range of recommendations, ready to be read by policy decision-makers. Many names of contributors are missing on the web page as they did not yet confirm to IAA their participation. IAA and Serge Plattard will both send a reminder.

4.1.5 Space Systems as Critical Infrastructure (SG 5.13)

Marius-Ioan Piso presented the status of the study that he chairs (co-chair Sergio Camacho). Study will include qualitative and quantitative assessment of risks and vulnerabilities for critical infrastructure. The final extended outline is available and the draft of the study is expected for October 2015, the final draft in January 2016 and the final version for March 2016. Stress will be put on the dependencies to space systems. Work done by five persons will be distributed to the members of the team. Serge Plattard mentioned an on-going study from the EC assessing vulnerability and consequences if loss of GNSS. The study will be finished mid-2015. It assesses the socio-economic impact of a global GNSS system failure.

4.1.6 Reference report on Space Debris (SG 5.14)

No representative was present to report.

4.1.7 Space Traffic Management: Towards a Roadmap for Implementation (SG 5.15)

Kai-Uwe Schrogl and Corinne Jorgenson are co-chairs of that study group. Alexander Soucek, the rapporteur, recalled that the study formally started at the end of 2014, is now in the implementation phase with a broad representation. It will review / merge past initiatives. The chapter on Regulation will focus on space traffic elements in space, implemented and accepted. Comparison will be made with regime existing in other systems, like maritime. The draft chapters should be ready by July 2015, with a full draft by September 2015, the final draft at Spring 2016 and the adoption in October 2016. Ray Williamson suggested that the report remains short and easy to read. Alexander Soucek confirmed the plan is that it is usable and used.

4.2 New study proposals

Space at the service of global challenges on Earth: the idea was proposed by Isabelle Duvaux-Bechon last year and discussed with two members of

the Commission since with some indication that it might be difficult to find original collaboration on a theme that is quite different from the ones dealt with up to now. Some highlighted that a lot already exist. Corinne Jorgenson mentioned the interest to get to a subject that was not too much treated before and that could be done in the context of the Heads of Space Agencies Summit on Climate Change & Disaster Management and its follow-up.

Serge Plattard added it was an interesting subject. Analyzing the impact on society and the way it works, we are more and more dependent on space in all sectors, what is then the stability of society and its vulnerability, how space can protect. Study 5.13 seems to look much into the societal impact. Marius-Ioan Piso indicated that some critical points may impact next years, we do not know what will happen, it is difficult to make a prediction. Max Grimard recalled that the Commission 6 “Space & Society” deals also of socio-economic impact of space. A question was raised regarding collaborating with other groups. The real issue is with the business model: how money is flowing, who is paying for the free data; time and environment are changing. Serge Plattard stressed that the change is not homogeneous around the world, we should analyze the title and grid. Corinne Jorgenson suggested to look at the economic organization in other countries. Isabelle Duvaux-Bechon to circulate an updated draft to Commission V.

5. IAA Conferences and Symposia

5.1 IAA International Conference on Climate Change and Disaster Management – Space Based systems and their Applications: Technological and Legal Perspectives, Kovalam, India, 26-28 February 2015

The conference has been very successful with more than 200 participants, 90 papers and an active round table of Heads of Space Agencies.

Marius-Ioan Piso stressed that potential topics for the September Conference in Mexico City were discussed and that we should find a channel to promote it with the December Paris COP 21.

5.2 IAA Symposia at IAC

The topics chosen for Symposia E3 include “feeding” the study groups

with additional input, but is not limited to this. The number of papers submitted to the IAA Symposia was presented. Selection is under completion.

5.3 New Conferences proposals

No additional ideas were proposed.

6. Report from the Permanent Committees

6.1 Space Debris Permanent Committee

No representative was present to report.

6.2 IAA/IISL Scientific Legal Liaison Permanent Committee

Nicola Rohner-Willsch presented the status report. There were some 50 participants at the round table in Toronto “controlling the Eyes in the Sky- Preventing abuse of space data” and all papers are available.

The next one in Jerusalem will be the 30th Scientific-Legal Roundtable with the topic “Universities as Actors in Space”. There are 6 invited speakers + 2 unexpected abstracts fitting well with the topic and complementing panel so both accepted. This means 8 speakers with some 10 minutes each + discussion.

There is an issue with a web access via potentially two different entry points (E3.5 and E7) with some papers appearing only in one when both should be copied one into another. Max Grimard will investigate. The Committee is preparing a short Jubilee brochure and is asking for contributions. The round table in Mexico in 2016 will be on “the Future of Regional Cooperation” and with the same format. Rainer Sandau follows Wendell Mendell in the function of co-chair.

7. IAA Heads of Space Agencies Summit: Follow-on Activities

Corinne Jorgenson reported on progress on the preparation of the Heads of Space Agencies Summit on Climate Change and Disaster Management (Mexico, 17-18 September 2015). The first day, the IAA Conference on Climate Change and Disaster Management will take place and the Call for Papers is out. People are invited to submit abstracts. The next day, the Summit on Climate Change and Disaster Management will take place and 20 heads of Agencies already confirmed their participation in the

Summit. It will have a similar format than the Summit on Exploration.

8. Other business

None.

9. Adjourn