International Academy of Astronautics 6, rue Galilée, 75116 Paris http://www.iaaweb.org

Commission 5 Space Policies, Law and Economics

Meeting Report

Bremen, 1st October 2018 Room ÖVB6

Attendance:

Bernhard Schmidt-Tedd (Chair), Isabelle Duvaux-Bechon (Vice-Chair), Marc Haese, Oana Neagu, Marius-Ioan Piso, Serge Plattard, Nicola Rohner-Willsch

1. WELCOME

The Chair of the Commission, Bernhard Schmidt-Tedd, welcomed the participants. Isabelle Duvaux-Béchon, representing the Commission at the IAA plenary meeting and the SAC meeting, synthesized the main messages:

- New studies are needed and the ideas have to be "transformed" more quickly
- The page "call for participating in studies" should be used more often to propose contributions
- Chair / rapporteur of each conference and symposium should provide a technical report with main scientific results (not the number of attendants). An IAA General Rapporteur has been nominated to take care one page guideline has been provided to chair and rapporteur all reports to be put in a book for the Board of Trustees and more distribution if large enough
- The activity of Commissions between Spring and Autumn meetings is too reduced, meetings (potentially by phone) should be held in between with one IAA staff participating
- Wish that the Academicians are more active
- The SAC appreciated the work of the Commission but would like to get a report from the scientific symposium

2. ADOPTION OF THE AGENDA

The agenda was adopted.

3. ADOPTION OF THE MINUTES OF THE LAST COMMISSION 5 MEETING, PARIS, 26TH MARCH 2018

The minutes of the last Commission meeting in Paris were adopted.

4. IAA COSMIC STUDIES

4.1 CURRENT STUDIES

The Chair introduced the status of the studies.

4.1.1 Study Group **5.10** - Orbital Debris Removal: Policy, Legal, Political and Economic Considerations

The results were presented at the Academy Day. Final adjustments are being implemented and the final report is estimated for 1st November. Issues regarding publication are being addressed in order to ensure availability of the results for all.

4.1.2 Study Group 5.12 - Dynamics of Space Exploration Strategies and Future Outlook

Serge Plattard reported on the criticalities of the study. It started quite fast with a pre-draft in 2014 for ISEF1. Inputs were requested in 2016 from the 18 members with no return. Exploration strategies are also moving fast and prevent preparing a meaningful report. Serge Plattard informed the Commission he was stepping down from the lead of the study but still ready to contribute on human space exploration. It was proposed to rejuvenate the study by targeting the next ISEF (around 2021) and publishing it some 6 to 12 months before the Forum. Serge will discuss with the co-Chairs. Marc Hease is ready to join the study.

4.1.3 Study Group 5.13 - Space Systems as Critical Infrastructure

Piso reported that the study is in print.

4.1.4 Study Group **5.15** - Space Traffic Management – Towards a Roadmap for Implementation

The study has been printed and Isabelle Duvaux-Béchon presented it during the Academy Day.

4.1.5 Study Group **5.16** - International Legal and Policy Regimes for Space Natural Resources Exploitation and Utilization (SREU)

Some elements were provided before the meeting: the study group team members are being identified and invited. The draft outline will be available and agreed by members by the end of 2018. The draft preliminary report is planned for the end of 2019.

4.1.6 Study Group 5.17 – Space Debris Situation Report - 2019

Christophe Bonnal provided the full report of Space Debris activities before the meeting. The title could be changed to 2020 in order to have enough time for a meaningful update. The first draft of the table of contents has been shared in the group. The membership list is under discussion (including Chinese, Indian, Ukrainian, Korean, more Russians...).

4.2 NEW STUDIES PROPOSALS

Impact Deflection Assessment (NASA DART mission and ESA AIM (liability of impact missions) – proposed by Marius-Ioan Piso Content and members will be available in Spring 2019

Security issues of space activities (the past 50 years and the future 50 years) – proposed by Serge Plattard

Lesley-Jane Smith is interested to join. Content and members will be available in Spring 2019

Isabelle Duvaux-Béchon asked whether it would be interesting for the Commission to launch a study on the **socio-economic benefits of space activities**, analysing how to better involve society in the scientific world, assessing the contributions of space technologies to policies (health / education / water / food / energy). This could be done in collaboration with Commission 6.

5. IAA CONFERENCES

5.1 CURRENT IAA CONFERENCES

8th Space Debris Workshop@JAXA, Chofu Aerospace Center (Tokyo, JAPAN) 3-5 December 2018

7th IAA Conference on Space Systems as Critical Infrastructure

2-3 August 2018, Mamaia, Romania

It generated scientific papers and had the largest attendance of all the Mamaia conferences.

5.2 IAA SYMPOSIA AT IAC

IAC 2018, 1-5 October, Bremen, Germany

31st IAA symposium on space policy regulation and economics,

01-05 October 2018, Bremen, Germany (IAC E3)

Program Committee Chairs or representatives: B. Schmidt-Tedd / J. Masson

- 6 sessions (1 joint with IISL Round table on Cooperation in Planetary Defence) 49 oral presentations confirmed
- Always more applications than what can be accommodated
- The session E3.6 (Strategy of Risk Management) will be moved to another symposium
- The new session E3.6 will be "Strategy of space procurement"

16th IAA Space Debris Symposium,

01-05 October 2018, Bremen, Germany (IAC A6)

Program Committee Chairs or representatives: C. Bonnal / J-C. Liou

- 6th symposium by the number of abstracts submitted
- Highest number submitted for that symposium: 246
- Selected: 105 uploaded (as of this morning): 94
- 10 sessions (including 2 joint sessions with Space Security and Astrodynamics)

33rd IAA/IISL scientific legal round table: Global cooperation in planetary defense 01-05 October 2018, Bremen, Germany (IAC E7.6)

Program Committee Chairs or representatives: A. Harris / Y. Takeuchi

• 4 speakers invited, welcome addresses by the Secretary General of the IAA, Jean-Michel Contant and the President of the IISL, Kai-Uwe Schrogl

6. REPORT FROM THE IAA PERMANENT COMMITTEES

IAA Permanent Committee on Space Debris Chair: C. Bonnal, Co-Chair: H. Klinkrad, Secretary: Liou Jer-Chyi Full report provided in advance of the meeting

• 2019 IAC in Washington: potential topics for discussion: Joint Session with Small-sats, Space operations – Space Traffic Management, in orbit servicing and space debris removal...

IAA/IISL Scientific Legal Liaison Permanent Committee

Co-Chairs: Frans von der Dunk, R. Sandau

Secretaries: N. Rohner-Willsch, M. Haese

• Theme for 2019 IAC in Washington: Mega Constellations and Microsatellites

7. IAA HEADS OF SPACE AGENCIES SUMMIT

No report

8. OTHER BUSINESS

Identify new members that would be interested to contribute to the work of the Commission

Nicola Rohner-Willsch asked whether it would be interesting to start a working group on spaceports that could work in cooperation with the ICAO. Marius-Ioan Piso would be interested.

9. ADJOURN

Next Commission 5 full meeting will be in Paris on 25 March 2019.