

International Academy of Astronautics

Commission V Report on Meeting

**Valencia, Spain
Sunday 1 October 2006**

1/ Attendance

Gerard Brachet, Chairman
Kai-Uwe Schrogl, Vice-Chairman

Participants: Heiner Klinkrad, Jean-Jacques Favier, Corinne Jorgenson, Nicholas Johnson, Fernand Alby, William Ailor, Mahulena Hofmann, Mathias Spude, Serge Plattard, Walter Flury, Junichiro Kawaguchi, Claire Jolly, Jeff Maclure, Nicolas Peter, Sridhara Murthi, Ray Williamson, John Logsdon, Kasato Suzuki, Graham Gibbs, Elisabeth Back Impallomeni, Henry Herzfeld, and Maurice Andem.

Gerard Brachet, Chair of Commission V opened the meeting and asked the participants to introduce themselves. The Commission V Secretary, Debra Facktor Lepore, could not attend the meeting, and Corinne Jorgenson has been asked and agreed to assume the Secretary role for this meeting.

2/ Short review of the agenda

The agenda, which had been distributed before the meeting was adopted.

3/ Review of the Status of Symposium E3 in Valencia

Session E3.1 (A&B)–Policies for a New Era in Space
Session E3.2–Enabling Commercial Opportunities in Space–2 papers are withdrawn
Session E3.3–Space and Global Security
Session E3.4–Space Tourism: Keeping the Dream Alive
Session E3.5–Scientific-Legal Roundtable on Nuclear Power Source

4/ Planning for IAC 2007 in Hyderabad

The Symposium E3 titled "Space Benefits–Opportunities for Mankind: Policy and Economic Aspects" is coordinated by Gerard Brachet and Kai-Uwe Schrogl.

Session E3.1–Socio Economic Benefits of Space Activities for Developing Countries
Co-Chairs: M.Y.S. Prasad and Harijono Djojodihardjo
Rapporteur: Claire Jolly
Session E3.2–Space Systems Benefits for Global Security
Co-Chairs: Doug Aldworth and V.S. Hedge
Rapporteur: Mahulena Hofmann
Session E3.3–Economic and Cultural Benefits of Space Systems

- Co-Chairs: Kazuto Suzuki and Alice Lee
Rapporteur: Nicolas Peter
- Session E3.4– Benefits from Space Exploration and Discovery for Science and Society
Co-Chairs: Toshifumi Mukai and Serge Plattard
Rapporteur: Mathias Spude
- Session E3.5– Scientific-Legal Roundtable “Google Earth et al–Pros and Cons of an Easier Access to Satellite Imagery”
Co-Chairs: Wendell Mendell and Frans Von Der Dunk
Rapporteur: Corinne Jorgenson

There is a proposal for an IAA/IISL plenary event on the views and perspectives of the Outer Space Treaty, at the occasion of the 50th anniversary of the space age and the treaty’s 40th anniversary next year. This event would focus on the political and legal aspects of space activities. Commission V would be involved in bringing the policy perspective. Kai-Uwe Schrogl will coordinate with IISL.

5/ IAA Conference Proposals

China is pushing to organize a workshop in September 2007 in Shanghai, on the model of the 2001 conference titled “International Symposium on Impact of Technology Innovation on Economic Development.” More information is available at <http://iaaweb.org/content/view/58/105>. It was noted that the UN/IAF workshop takes place the week before the suggested timeframe; therefore Commission V would be ready to support this workshop proposal if more details are available and if the Board of Trustees decides to go ahead, but at a different time.

6/ Status of Current Study Group Activities

- IAA Space Debris Mitigation Guidelines

The IAA Space Debris Mitigation Guidelines Position Paper is available online at <http://iaaweb.org/iaa/Studies/spacedebrismitigation.pdf> on the new IAA website. The report has been published this year with a new printing in the standard IAA A5 format and distributed at IAA meetings and during the IAC in Valencia. It will be presented at the UN COPUOS S&T Subcommittee in February 2007.

- IAA Space Traffic Management

The IAA Space Traffic Management Cosmic Study is available online on the IAA new website at <http://iaaweb.org/iaa/Studies/spacetraffic.pdf>. DLR has printed between 400 and 500 copies that have been distributed at IAA meetings, appropriated organisations such as ICAO, FAA, U.S. Congress, U.S. State Department to mention a few, as well as the plenary session of UN COPUOS where the study has been presented in June 2006.

John Logsdon noted that the Space Traffic Management study is a good example of the IAA forward looking and thinking ahead of an issue. The advertising of the Academy cosmic studies was discussed and it was proposed to raise the issue at the SAC and BOT meetings. Even though the current publication standard was decided by the IAA Publication Committee ten years ago, it was suggested to have a bigger IAA logo on the cover pages. More information on the IAA cosmic studies is available at <http://iaaweb.org/content/view/52/99/>.

7/ New Study Group Proposals

Gerard Brachet noted that it is essential to have team leaders identified right away when new study topics are proposed.

- Space Debris Environment Remediation

A proposal for establishing a new Cosmic Study Group on “Space Debris Environment Remediation” was approved by Commission V. Study Group leaders are Heiner Klinkrad (ESA/ESOC) and Nick Johnson (NASA/JSC), with Fernand Alby (CNES) acting as secretary. Commission III will be invited to participate.

- Environment Protection of the Moon

A previous proposal to establish a Study Group on environment protection of the Moon had been considered by Commission V in Vancouver and Fukuoka, but no decision was taken for lack of a formal proposal. Also, the initial approach was restricted to protection from a radio-astronomy viewpoint. Commission V believes it is a timely issue which would be ideal for an IAA Cosmic Study, possibly not limited to the Moon but including other bodies of the solar system. Jeff McLure volunteered to contact Commission II (biological aspects) and Commission VI (cultural and historical aspects) in order to develop a formal proposal within two months. Mahulena Hofmann also volunteered to help out. A final decision should therefore be possible in March in Paris.

- Benefits of Space Activities

A study has been suggested based on an initial proposal by Mukund Rao to both Commissions V and VI on “Benefits of space activities.” A lengthy discussion during the joint session of Commissions V and VI concluded that the initial proposal was overly ambitious and would run the risk of not being able to produce a report in a reasonable time. A joint Commission V - Commission VI Steering Group was established to review the proposal and recommend the way forward. If an updated proposal is developed as a result of the steering group recommendations, it will be considered at the Paris meeting in March 2007.

- Launcher Policy

A previous proposal to establish a Study Group on “Launcher policy” has been discussed by the Commission. Henry Hertzfeld (GWU) and Corinne Jorgenson (ASCG) took the action to develop a draft proposal by November. Mathias Spude volunteered to help out. This will be considered at the Paris meeting in March 2007.

- Manned Sub-Orbital Flights

The Commission also discussed the idea, suggested by Christophe Bonnal, of a “Manned sub-orbital flights” Study Group, which would focus on the policy, legal and economic (insurance) aspects of commercial manned sub-orbital flights (sometimes associated with Space Tourism). Coordination with a “Space Tourism” Study Group being considered by Commission III is essential before going further. The subject of sub-orbital flights is also on the list of possible topics for a Scientific-Legal Roundtable.

- Policy Implications of Earth Protection against NEOs

A Study Group concentrating on the policy aspects of any decision to deflect or destroy an approaching NEO was proposed. As a Study Group is on going under Commission III on asteroids and the potential danger they represent for planet Earth, it was decided that Bill Ailor would contact Ivan Bekey to review the status of Commission III activities in this area.

On the basis of this review, it will be decided if a new Study Group under Commission V would be the best way forward or, alternatively, if a redirection or extension of the on going Commission III study would be more appropriate.

- Space and Global Security

The idea of establishing such a study group under Commission V was already addressed in Fukuoka and the decision was taken to wait for the session dedicated to this topic, which is part of Symposium E3 in Valencia. A specific meeting of Commission V members who are interested in this issue will take place on Thursday October 5 after session E3.4. It will review the usefulness of having an IAA cosmic study in this area and address its recommendations to the Commission V leadership. The discussion, which took place on Oct. 5 at the end of session E3.4, was not conclusive. Further exchanges between Commission V members and potential interested participants are needed before drafting a proposal - Action Gerard Brachet.

9/ Designation of a Commission V correspondent for Acta Astronautica

The new publication policy of the Academy will be to publish mainly its space policy papers no longer in Acta Astronautica but in the Space Policy journal. The remaining other subjects dealing with the scope of Commission V will continue to be published in Acta Astronautica. Consequently, all the IAA commissions were invited to appoint representatives to overview publications into the Acta Astronautica journal. The commission agreed to appoint Kai-Uwe Schrogl as Commission V representative for Acta Astronautica.

10/ Designation of a Commission V representative for the Editorial Board of the “Space Policy” Journal

Upon request of the Secretary General, and following an action item initiated by John Logsdon, the Commission V was asked to appoint a representative to the Space Policy journal. This appointment will be incorporated in a new partnership to be negotiated between the Academy and the journal owned by Elsevier Science Ltd. The Commission nominated Kai-Uwe Schrogl as the representative of the Academy to become IAA co-editor of this journal. He has been in the Space Policy editorial Board for six years.

11/ Plans for the celebration of the 50th anniversary of the Space Age

There is a proposal to organise an event at UNESCO in Paris during the IPC meeting in March 2007. The high level event, which was considered at one point to be organized in the UN Headquarters in New York in October 2007, is not planned anymore.

12/ Commission Membership

Each Commission of the Academy has ten official members that are empowered to decide proposals that are forwarded to the IAA Scientific Activity Committee (SAC) for discussion or arbitration. Then the SAC presents the results to the Board of Trustees for endorsement. This process is working successfully as exemplified by the acceleration in study production (12 studies during the last 3 years). Each commission conducts twice a year open meetings in order to get fresh ideas, so anybody is welcome to attend.

13/ Date of next meeting

The next Commission V meeting will be held at the IAA, 6 rue Galilée, 75116 Paris, on Tuesday March 20, 2006– 8h30-11h.

Please check the IAA website, “News and Calendar” for information and updates at: <http://iaaweb.org/content/view/171/287/>

14/ Joint Session with IAA Commission VI

A joint session with IAA Commission VI was held from 12:00 to 13:30, which gave an opportunity for a better interaction between the two commissions and better information about the other commission’s activities. The joint session summarized by Geoffrey Languedoc, Commission VI Secretary, is attached.

Being no other business the meeting adjourned.

ATTACHEMENT

COMMISSION VI/V – Joint meeting in Valencia during the 57th IAC October 1, 2006

Attendance – Commission V: Gerard Brachet (Chair), Kai-Uwe Schrogl (Vice Chair), Corinne Jorgenson (Secretary), Jeff Maclure, Sridhara Murthi, Maurice Andern, Elisabeth Back Impallomeni, Nicholas L. Johnson, Mahulena Hoffmann, Mathias Spude, Serge Plattard, Jean-Jacques Favier, Graham Gibbs, Bill Ailor, Vicente Gomez Dominguez, Heiner Klinkrad, Walter Flury, Fernand Alby, Claire Jolly, Kazuto Suzuki, H. Paul Shuch, Christian Lardier.

Attendance – Commission VI: Roger Malina (Chair), David Raitt (Vice Chair), Geoffrey Languedoc (Secretary), Karl Doetsch, Shinji Matsumoto, Gordon Whitcomb, Peter Wood, Barbara Wood (observer), Anne Brumfitt, Lachlan Thompson, Carol Oliver, Iván Almár, Olfrid Liepack, Päivi Jukola, Art Stephenson, Ingemar Skoog, Peter Swan, Barbara Wood

1. Brief tour de table of self-introductions.
2. Key areas of interest, continuing activities, future directions:

COM VI

History, technology transfer, spin-off, spin-in, fine arts, performing arts, languages (multilingual space dictionary).

Space, society and culture – COM VI is the natural ‘bridge’ between IAA and the broader society.

COM VI is developing a list of things that are important to society – shelter, safety, etc. Next step is to prioritize them. This activity will guide the setting up of Study Groups. Their output is intended to be meaningful to society in general.

COM V

Space policy, legal and economic aspects.

Has a session this year called Space and Global Security within Symposium E3, and is preparing a symposium called “Space Benefits - Opportunities for Mankind: Policy and Economic Aspects” for Hyderabad. It is collaborating with the Space Debris Mitigation working group, and organizes the joint IAA/IISL Round Table, this year addressing the issue of Nuclear Power Sources in Space.

Recently completed Study Groups include Space Traffic Management, Space Debris and Space for Peace.

COM V is considering possibilities for collaboration through IAA with other organizations on dedicated conferences.

3. Possible areas of COM V/COM VI collaboration:

Study Group proposal by Mukund Rao: Benefits of Space Activities to Society
50th Anniversary of Space in 2007

SG 6.8: perhaps could be developed into a joint 'Benefits to Society' SG with COM V

COM V Chair Gerard Brachet suggested that it would be a good idea to narrow the scope of the collaborative Study Group proposed by Mukund Rao, so that a product could be developed within about 2 years. There could be a two-stage process:

Stage 1 – interim report – description of the present situation – completion within about 2 years.

Stage 2 – more definition and work, plus final report – sometime after release of interim report.

COM VI Chair Roger Malina said that time would probably not permit preparation of a SG proposal in time for submission this week to IAA. He suggested that a key question that must be answered is, "Is there a 'gap' in the information being produced by agencies, industry and academia that our proposed joint SG would fill?" What added value can our work offer that would be absent in respect of the studies done by other organizations in accordance with their own agendas?

A discussion followed. General agreement was reached regarding a joint COM V/VI Study Group and the criteria it must satisfy:

- a. A useful product can be made ready in about 2 years. It should be targeted principally at non-space communities, although the funding organizations (governments, universities) also need to be convinced of the value.
- b. The product will not duplicate existing/planned activities. In this respect it would be useful for COM V to review and complete our Priority-setting matrix to identify areas of overlap.
- c. There must be COM V and VI members willing to carry out an ensuing SG.

4. Regarding the proposal by Mukund Rao:

- a. The first step will be to inventory existing studies and identify any gaps
- b. Next will be the identification of emerging needs and new technologies
- c. Then the proposal can be re-worked and re-considered in light of the findings with the possibility of moving ahead with a proposed SG, perhaps in conjunction with the March'07 IPC meetings in Paris.

Decision:

A Steering Group has been struck consisting of:

Karl Doetsch

Claire Jolly

Sridhara Murthi

David Raitt

The Steering Group will perform Step A. under the Rao proposal above:

- "Inventory existing studies and identify any gaps"

and will advise the members of COM V and VI of their findings. It was hoped that Step a. would be completed prior to the end of the Valencia Congress.

Should gaps be identified that would be appropriately filled by a joint COM V/VI SG, the Group will prepare the required proposal by the end of November 2006 for review by the two Commissions.

This timeframe should permit the proposal to be finalized in time for submission to IAA during the IPC meeting in Paris next March.

5. Space and Society Conferences being organised at ESTEC in 2007 (Raitt) and by CASI in Canada in 2008 (Languedoc).

David presented the plans for this conference in 2007, and there was some discussion about how the 2007 and 2008 conferences might be positioned and promoted.

The Call for Papers is on the ESA conference web site at <http://www.congrex.nl/06a12/>

6. Other initiatives and ideas.

In the area of the history of space, one possible collaboration could involve identification and protection of heritage sites, i.e. the Apollo moon landing site.