

International Academy of Astronautics

Commission V Report on Meeting

**Hyderabad, India
Sunday 23 September 2007**

1/ Attendance and Transfer of Chairmanship

Kai-Uwe Schrogl, Chairman 2007-2009
Gerard Brachet, Chairman 2005-2007
Sergio Camacho, Vice-Chairman 2007-2009

Participants: Heiner Klinkrad, Jean-Jacques Favier, Corinne Jorgenson, Nicholas Johnson, Fernand Alby, William Ailor, Mahulena Hofmann, Mathias Spude, Serge Plattard, Walter Flury, Nicolas Peter, Sridhara Murthi, Ray Williamson, John Logsdon, Kazuto Suzuki, Graham Gibbs, Elisabeth Back Impallomeni, Henry Herzfeld, Petr Lala, Bernhard Schmidt-Tedd, Marc Haese, Wolfgang Rathgeber, Werner Balogh, Mukund Rao, Motoko Uchitomi, Constantinos Stavrinidis, A.S. Ganeshan, Geir Hovmork, Paul Larsen, Toshifumi Mukai, Koppillil Radhakrishnan, Douglas Aldworth, Frances Brown, Joanne Gabrynowicz, José Monserrat Filho, Genevieve Gargir, Nicola Rohner, Pascale Ehrenfreund and IISL President Nandi Jasentuliyana.

Gerard Brachet, 2005-2007 Commission V Chair, opened the meeting and thanked Kai-Uwe Schrogl, John Logsdon and the people involved in the work of the Commission during his chairmanship. He also thanked Corinne Jorgenson who agreed to assume the Secretary role (2005-2007) on behalf of Commission V Secretary Debra Facktor Lepore who could not attend the meetings.

2/ Introduction and New composition of the Commission

Kai-Uwe Schrogl then took over the chairmanship and thanked Gerard Brachet for the two years of diligent work. After asking the participants to introduce themselves, he informed them about the audience composition that includes the official members of the Commission V, all the persons involved in Commission V symposia/sessions and everybody who is interested in the work of the Commission.

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 (for more information see <http://iaaweb.org/content/view/258/395/>).

The chair is elected for 2 years and the vice-chair will automatically be the successor. The official members are Kai-Uwe Schrogl, Sergio Camacho, Corinne Jorgenson, Mukund Rao, Heiner Klinkrad, Serge Plattard, Constantinos Stavrinidis, Ray Williamson, Y. Zhu and J. Zielinski.

The Academy membership is structured in four Sections (a vertical approach) which are focusing on membership quality issues only. This Commission is mainly made from Section 4 “Social Sciences” membership. Eight years ago, IAA structured its scientific activity through six Commissions (a horizontal approach) coordinated by the Scientific Activities Committee (SAC).

The purpose of Commission V is to:

- 1/ shape the Commission V symposium (4 sessions and one scientific/legal roundtable), decide the topics and the composition of chairs, vice-chairs and rapporteurs
- 2/ initiate and oversee studies (on a volunteer basis, 3 years, reviewed by peer review committee and the IAA Board of Trustees)
- 3/ organize standalone conferences through Program Committees (for detailed information see <http://iaaweb.org/content/view/257/394/>)
- 4/ interact with any organizations

3/ Report on the Commission V meeting of 20 March 2007

The minutes from the March meeting were attached to the agenda for review.

4/ Report on the IAA Strategic Outreach Committee (SOC)

Gerard Brachet, member of this Committee reported that the IAA Board of Trustees decided to set up an IAA Strategic Outreach Committee, chaired by IAA Vice President Finance, Claudie Haigneré. The Committee has terms of reference that have been approved and the first meeting of this Committee should be held sometime during this coming week. The purpose of the Committee is to look at how the connection of the Academy and the “rest of the world” can be improved.

John Logsdon stated that the Space Traffic Management (STM) study provides a great model for the Academy. The study is looking ahead but not too much so that it has policy relevance. The International Space University did a project on this topic during this year’ summer session in Beijing and Gerard Brachet brought the IAA STM cosmic study to the attention of the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS). It is not just about what needs to be done but also about how to implement it (administrative thinking) and the STM study provided many options. The fact that the IAA studies are interdisciplinary by nature is an important asset.

The question was raised as to how to make the IAA work more relevant for industry and business. In reply, it was recalled that Commission V has flexible working procedures that can be used for that purpose, for instance Commission V members and participants can provide names of organizations that should be approached and build workshops, standalone conferences and develop joint ideas.

Joanne Gabrynowicz mentioned that vocabulary is an important factor with industry, i.e. privatization and commercialization have different meanings in different parts of the world. Kai-Uwe Schrogl mentioned that the Academy has a multilingual dictionary since the 1960s, but this approach is different. He suggested that Joanne investigate the subject. Commission VI will hold a Symposium on Space Terminology (E.7) at Glasgow. This might be the opportunity to have a background paper on the topic and/or cooperation with Commission VI.

Sridhara Murthi mentioned the need to be able to demonstrate the economic benefits of space activities. He referred to the study on the economics of the Indian Space program conducted by Prof U. Shankar of Madras School of Economics, which is now published (2007) by Oxford University Press (ISBN 019568345-5).

Mathias Spude stated that industry looks for cross margin space activities led by national policies and government. The IAA represents a neutral and expert opinion that can help foster space activities, convincing for instance government to invest more money into space.

5/ Report on the 2007 session of UNCOPOUOS

Gerard Brachet reported on the main outputs of the 2007 session of UNCOPOUOS. In particular, he stressed the adoption of the Guidelines on Space Debris Mitigation, which result from many years of excellent work done by the Inter Agency Debris Committee (IADC) and by the Space Debris Working Group of the COPUOS Scientific and Technical Subcommittee. He recognized the enormous contribution of Nick Johnson, Walter Flurry, Heiner Klinkrad, Fernand Alby and many others. Gerard presented a number of proposals looking forward in terms of new issues that UNCOPOUOS should address. The issue of “Rules of the road” or “Rules of behaviour” in space operations (expression which is often used in lieu of “Space Traffic Management”) needs a lot more ground work at the technical level to try to develop some consensus. It appears that the success of the COPUOS work on adopting the Space Debris Mitigation Guidelines can serve as a model for further work on topics such as “Rules of the road”. Informal consultations will take place during the next few months to see if a consensus can be found for UNCOPOUOS to start debating this issue.

UNCOPOUOS will be more proactive to request IAA and other non governmental organizations such as the IAF, COSPAR or the IISL to produce studies/reports on issues of interest to COPUOS. Because of its recognized series of Cosmic Studies, IAA might be able to do better than some other organizations. Kai-Uwe thanked Gerard for his effort bringing Commission V related topics at UNCOPOUOS.

6/ Status of Symposium E3 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 Djodjodhardjo

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: Nicola Rohner

7/ Preparation of Symposium E3 at 2008 IAC Glasgow (29 September-3 October)

The symposium coordinators are Kai-Uwe Schrogl and Sergio Camacho.

- Session E3.1 – New Developments in National Space Policies and Programmes
 Kai-Uwe encourages members and participants to ask others to present their developments to see what is going on around the world.
 Co-chairs: Pierre Molette and Janusz Zielinski
 Session E3.2 – Space Policies and Programmes of International Organizations?
 UN, Intelsat, Inmarsat, Eutelsat, etc. This is not restricted to international and is open to intergovernmental organizations.
 Co-chairs: Sergio Camacho and Colin Hicks
 Session E3.3 – Assessing Public-Private Partnerships in Space Projects
 Co-chairs: Gérard Brachet and Motoko Uchitomi
 Session E3.4 – Policy and Regulations Questions in Protection of Environment of Celestial Bodies. Topic suggested due to ongoing cosmic studies.
 Co-chairs: Mahulena Hofmann and Petra Rettberg
 Session E3.5 – Scientific-Legal Roundtable: “Paper Satellites”: Problems of Policy, Regulation and Economics. The roundtable is with invited papers only.
 Co-chairs: Lubos Perek and Corinne Jorgenson

8/ Status of Commission V Study Groups

- Planetary Protection

The proposal to establish a Study Group on “Planetary Protection” has been approved by Commission V. Study leaders are Mahulena Hofmann - Chair, - Petra Rettberg - Co-Chair, Marc Haese – Rapporteur. It will now be submitted to SAC, then IAA Board of Trustees for approval.

- Launcher Policies and Regulations

The proposal to establish a Study Group on “Launcher Policies and Regulations: Perspectives for the 21st Century” has been approved by Commission V. Study leaders are Corinne Jorgenson - Chair, Henry Hertzfeld - Co-Chair, Andrew Aldrin - Rapporteur. It will now be submitted to SAC, then IAA Board of Trustees for approval.

- Space Debris Remediation

Heiner Klinkrad made a short presentation of the newly established “Space Debris Remediation” Study Group that he co-chairs with Nick Johnson, with Fernand Alby as secretary. This study group is taking off quite well and should be able to produce its report by the end of 2009. Gerard suggested that its progress should be presented every year at the COPUOS STSC meeting.

Completed Study Groups reports:

The IAA Space Debris Mitigation Guidelines Position Paper is available online at <http://iaaweb.org/iaa/Studies/spacedebrismitigation.pdf> on the IAA website.

The IAA Space Traffic Management Cosmic Study is available online on the IAA website at <http://iaaweb.org/iaa/Studies/spacetraffic.pdf>.

More information on the IAA cosmic studies is available at <http://iaaweb.org/content/view/52/99/>.

9/ Proposals for New Study Groups

- Policy Implications of Earth Protection against NEOs

Bill Ailor proposed a Cosmic Study concentrating on the policy aspects of any decision to deflect or destroy an approaching NEO. A Study Group is on going under Commission III on asteroids and the potential danger they represent for planet Earth. Bill Ailor has contacted 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. In addition, other outside groups are working on the topic such as the Association of Space Explorers, and the Space Generation Advisory Council. The IAA study should add value to other efforts being carried out. Bill Ailor will look into those aspects and get back to the Commission at the March 2008 spring meeting.

10/ Topics for Symposium E3 at 2009 IAC, Daejeong (Korea), 12-16 October

a/ Session Themes Proposals

- Status of International Cooperation for Space Exploration

Remarks: With the November 2008 US Presidential elections and the new administration in place in late January 2009, it is probably better to have this topic in 2010 rather than in 2009.

- Emerging Sector of Commercial Human Spaceflight

Remarks: Commission III has an on-going study on this topic. Also Commission II discussed the idea of a plenary session for 2008 on Space Tourism, looking at the medical aspects. Commission V could participate and bring the policy perspective on the subject.

- Global Navigation Satellite Systems

- New Form of International Cooperation to Accelerate the Inclusion of Developing Countries

- To what extent does space contribute to Sustainable Development?

b/ Plenary Event Proposals

- Achieving a Sustainable Space Environment for Future Space Activities”
- Space and Management of Environment

Remark: Commission V organized a Plenary Event in Fukuoka (IAC 2005) on GEOSS.

- Space Situational Awareness

Remark: Commission V could organize a standalone conference on this topic.

- Human Permanent Station on the Moon

Remarks: Topic might be addressed by other commissions. So Commission V should check other commissions’ activities and see where it should be involved.

11/ Commission V representation in Acta Astronautica and Space Policy Journal

Kai-Uwe Schrogl, Commission V representative for Acta Astronautica, mentioned that the assistant chief editor asked for an article on what happened in space policy the past year. The European Space Policy Institute will produce the article.

Kai-Uwe Schrogl, member of the Editorial Board for the past six years and Commission V representative for the Space Policy Journal, introduced Frances Brown, editor Space Policy Journal. Frances stated that there are 6 to 9 months from submission to publication. She is interested in publishing executive summaries of IAA Commission V studies. She is also open to publish conference reports when Commission V organizes standalone conferences. In addition, Frances Brown suggested publishing a summary of Symposium E3 with highlights on what is going on in this field every year.

12/ Date of next meeting

The next Commission V meeting will be held at the IAA, 6 rue Galilée, 75116 Paris, on March 26, 2008– 8h30 to 11h. Please check the IAA website “News and Calendar” for information and updates at: <http://iaaweb.org/content/view/171/287/>

Being no other business the meeting adjourned.