

International Academy of Astronautics

Commission 5 Report on Meeting

**Daejeon, Korea
Sunday 11 October 2010**

1/ Attendance

Sergio Camacho, Chairman
Max Grimard, Co-Chairman
Kai-Uwe Schrogl, Past Chairman
Corinne Jorgenson, Secretary

Mathias Spude, Ray Williamson, Nicola Peter, Nicola Rohner-Willsch, Werner Balogh, K.R. Sridhara Murthi, Claire Jolly, Mary Snitch, Henry Hertzfeld, Heiner Klinkrad, Marius Piso, John Logsdon, Kazuto Suzuki.

2/ Summary of the Commissions Members Meeting

The role of the Commissions, as defined in the Bylaws, is to address all technical work that the Academy conducts during the year: “initiation of focused activities, facilitate and observe such activities, enable the exchange of ideas and information among interested members of the Academy and recommend appropriate measures relating to the establishment and activities of Program Committees and Study Groups to the Board of Trustees.” Therefore it has to initiate and oversee not only the IAA Symposia at IACs but also initiate and oversee all the standalone conferences and studies that IAA conducts. This has to be reflected in the Commissions’ agendas and meetings, and this will be the case for Commission V starting next Spring meeting.

(see <http://iaaweb.org/content/view/257/394/>)

The historical evolution of IAA standalone symposia per Commission can be found at <http://iaaweb.org/content/view/299/438/> This year there are 14 Academy conferences and two Regional meetings including:

- 30 March - 02 April 2009, 5th European Conference on Space Debris, Darmstadt, Germany, co-sponsored by the International Academy of Astronautics
- 15-17 April 2009, 2nd International Conference on Advanced Space Technologies for the Humankind Prosperity, Dnepropetrovsk, Ukraine

- 15-17 April 2009, 3rd IAA Space and Society Conference, Space: the Human Dimension, Dnepropetrovsk, Ukraine
- 27-30 April 2009, 1st IAA 2008 Planetary Defense Conference, Granada, Spain
- 04-08 May 2009, 7th IAA Symposium on Small Satellites for Earth Observation, Berlin, Germany
- 07-11 June 2009, 17th IAA Human in Space Symposium, Moscow, Russia
- 06-09 July 2009, 6th IAA Symposium on Realistic Advanced Scientific Space Missions, Aosta, Italy
- 31 August - 04 September 2009, 6th IAA Symposium on Low Cost Planetary Missions, Goa, India
- 08-10 September 2009, IAA Symposium on Solar Power Satellite, From the Sun to the Earth, Toronto, Canada
- 08-11 September 2009, IAA co-sponsor of the United Nations Symposium on the Use of Small Satellites Programmes for Sustainable Development, Graz, Austria
- 12-16 October 2009, 60th International Astronautical Congress, Daejeon, South Korea
- 26-28 October First IAA Symposium on Nanotechnology, Energy and Space, Houston, Texas, USA
- 02-04 November First IAA Space & Global Safety of Humanity Conference, Limassol, Cyprus
- 24-25 November 3rd IAA Regional Conference: Space for Africa, Abuja, Nigeria

It has also been decided to create a Past Chairman position on the leadership team of each Commission to assure knowledge transfer and smooth transition. For this reason some commissions will have eventually 11 positions if necessary to fulfill this request.

The International Academy of Astronautics will celebrate its 50th Anniversary next year with four main events: July Academy Day in Bremen, Germany (COSPAR), September Conference in Nagoya, Japan (hosted by JAXA), September Academy Day in Prague, Czech Republic (IAC) and November in Washington DC, USA, with a “Heads of Space Agencies” Summit. The first three programs will address the preparation of the Summit.

3/ Welcome and introduction to the new composition of Commission V

The chair welcomed the new members of Commission V.

4/ Adoption of the agenda

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

5/ Commission V Symposia at IAC

5.1 Report on the 2009 Spring meeting of Commission V

In the past few years, there has been a significant increase of new Technical Committees established by IAF. In general, if IAF is creating a new technical committee and its topic overlaps that of an IAA symposium, the Academy should address it right away to seek a joint organization and avoid useless competition. For example, a new IAF Technical Committee on Space Economy created by OECD has its session, “The Space Economy in Figures,” under the umbrella of Commission V E3 Symposium for 2010.

Specifically, the creation of IAF Technical Committees should not lead to competition in the organization of sessions at IAC. Policy issues should exclusively be addressed in the Symposium organized by Commission V (see Commission V minutes on IAA website).

5.2 Review of IAC 2009 Daejeon

Session E3.1–New Developments in National Space Policies and Programs

There was no information from the Chair, Gilberto Camara, relating to his attendance, however, the co-Chair Nicolas Peter and the Rapporteur, Deganit Paikowsky were present and co-chaired the Session. 12 papers were submitted and 8 were confirmed.

Session E3.2–Space policies and programs of international organizations with particular regard to the participation of developing countries

There was no information from the chair, Mahdi Kartasasmita, and co-chair, Sylvia Kainz Huber related to their attendance. Therefore, it was decided that Sergio Camacho would serve as backup chair and Werner Balogh as backup co-chair and rapporteur.

Session E3.3–Launcher Policies and Regulations

The Chair Henry Hertzfeld and the Co-chair, Corinne Jorgenson and Rapporteur, Agnieszka Lukaszczyk, were present. 8 papers had been submitted and at the time of the meeting, 6 had been uploaded.

Session E3.4–International policy and economic aspects of space applications

Both the Chair, Chin-Young Hwang, and Co-chair, Géraldine Naja-Corbin had recently informed that they would be unable to attend. Therefore, it was decided that Ray

Williamson and Claire Jolly would serve as backup Chair and Co-chair for the Session. 13 papers were submitted and only 9 were uploaded.

Session E3.5–24th IAA/IISL Scientific-Legal Roundtable on Assessing Commercial Human Spaceflight (Invited Papers only). The Co-Chairs, Christophe Bonnal and William Pomerantz, as well as the Rapporteur, Nicola Rohner-Willsch, were present. The 5 presentations were uploaded.

5.3 Status of Symposium E3 at IAC 2010 Prague

In 2010, it will be the 23rd IAA Symposium on Space Policy, Regulations and Economics (Symposium E3):

This symposium, organized by the International Academy of Astronautics, will provide a systematic overview of the current trends in space policy, regulation and economics by covering national as well as multilateral space policies and plans. In addition it focuses on two specific issues: Space Weather and Planetary Protection, which is currently being researched under an IAA Cosmic Study project. The symposium also integrates findings of the IAA/IISL Scientific-Legal Roundtable, which deals with an inter-disciplinary assessment of small satellite missions.

Coordinators:

Kai-Uwe Schrogl, ESPI (European Space Policy Institute) Austria,

kai-uwe.schrogl@espi.or.at

Sergio Camacho, CRECTEALC (Regional Centre for Space Science and Technology Education for Latin America and the Caribbean) Mexico, sergio.camacho@inaoep.mx

E3.1 New developments in national and international space policies and programs

This session will provide a forum for presenting current space policies and programs of space-faring countries. It will also provide a forum for presenting current space policies and programs of international organizations with space activities.

Chairs: Kazuto Suzuki, Hokkaido University, Japan,

kazutosuzuki@jcom.home.ne.jp

Jan Kolar, CSO, Czech Republic, jan.kolar@czechspace.cz

Rapporteur: Catherine Doldirina, McGill University, Canada, kdoldyrina@yahoo.com

E3.2 Policy and economic aspects of space weather

Space weather slowly emerges as a policy item. While it has long been only a scientific question, its economic relevance is steadily growing due to its effects on commercial space activities in particular in the field of telecommunications. In addition, space weather is expected to become an element of new Space Situational Awareness projects so that international coordination should be foreseen. This session reflects on such questions of impact and coordination.

Chairs: Werner Balogh, UNOOSA, Austria, werner.balogh@unoosa.org

Dave Kendall, CSA, Canada, dave.kendall@space.gc.ca

Rapporteur: Jana Robinson, ESPI

Session E3.3: The Space Economy in Figures

For policy-makers, the ‘space economy’ has become an interesting concept covering not only the economic dimensions of the space sector, but also of its applications. What is the economic size of the international space sector? What are the socio-economic impacts of space applications? This session aims to present the state of the art in measuring the space economy. In addition to selected papers, it will include a number of invited papers by experts.

Chairmen: Pierre-Alain Schieb, OECD, pierre-alain.schieb@oecd.org
Pierre-Lionnet, Eurospace, pierre.lionnet@eurospace.org

Rapporteur: Claire Jolly, OECD, claire.jolly@oecd.org

E3.4 Protecting the Environment of celestial Bodies

This session will have at its centre the presentation of the finalized IAA Cosmic Study on that topic. Further views from the scientific as well as policy and regulative perspective are invited to bring this issue forward and to the attention of decision-makers.

Chairs: Mahulena Hofmann, University of Giessen, Germany,
Mahulena.Hofmann@recht.uni-giessen.de
Petra Rettberg, DLR, Germany, petra.rettberg@dlr.de

Rapporteur: Marc Haese, ESA-ESTEC, The Netherlands, marc.haese@esa.int

E3.5 25th IAA/IISL Scientific-Legal Roundtable: The new age of small satellite missions (Invited Papers only)

With small satellite missions on the rise, this session will look into the issue from the policy, economic and regulatory perspectives in order to shape a comprehensive picture of the state and the prospects of this area. The Roundtable, organized by the IAA/IISL Scientific-Legal Liaison Committee, will comprise invited papers by the leading experts only and is aimed at conducting an inter-disciplinary debate. It will be opened by the Presidents of IAA and IISL stressing the outstanding character of this event.

Chairs: Rainer Sandau, DLR, Germany, rainer.sandau@dlr.de
Leslie-Jane Smith, United Kingdom, ljsmith@barkhof.uni-bremen.de

Rapporteur: Nicola Rohner-Willsch, DLR, Germany, nicola.rohner@dlr.de

The Secretary thanked Nicola Peter and Kazuto Suzuki for their remarks at the last IPC meeting where the Roundtable session was threatened to be cancelled. The IAF is analysing each session per paper numbers and the ones that have the least can potentially be cancelled. However, each year the Federation is overlooking that the Roundtable is not on a typical session format but on invitation only, therefore having less paper submitted. This issue has never been resolved and Commission V recommendation is to have IAF add a “grand-father” clause such that the Roundtable is exempt of the count for Symposium E3.

In addition, Commission V is proposing a plenary on “Protecting the Space Environment,” which will be discussed during the IPC meeting in March 2010.

5.4 Collection of ideas for topics to be considered at the 2011 Symposium

The topics proposed include Exploration and Human Spaceflight (50th anniversary of Gagarine's flight), Space Sustainability, Economics, and Heads of Space Agencies Summit Follow-Up. The Congress in South Africa will be a good opportunity to include Academy African members as chairs and/or rapporteurs.

6/ Commission V Cosmic Studies

6.1 Status of Study Group Activities

- IAA Space Debris Environment Remediation

The final membership list with addresses and email has been sent to IAA for formal appointments. Heiner Klinkrad presented the study. The possibility of a follow up study on legal and policy issues could be brought up at the next meeting of the Commission.

- IAA Protecting the Environment of Celestial Bodies (PECB)

Kai-Uwe Schrogl reported on behalf of the study leaders that a first draft will be finalized by beginning next year and the review process should be launched as to have the study ready by next IAC (corresponding to the session on that topic).

- IAA Launch Regulations and Policies: Perspectives for the 21st Century

Henry Hertzfeld presented the status of the study and indicated it was behind schedule. Positive responses had been received from most individuals who had committed to writing chapters on regulations and policies in their countries. These include Australia, U.S., India, Japan, and Brazil. New people were recommended for the Ukraine, and France. The final membership list is being finalized, and there is still the need for a Russian and a Chinese representation in the study. The outline has been drafted.

- IAA Space Systems as Critical Infrastructure

The proposal was received in June 2008. Marius Piso informed that the study is behind schedule. The first draft of table of contents is expected by December 2009/January 2010 with the final membership list to be ready by the next meeting of the Commission.

6.2 Proposed Study Groups

There were two proposals:

- A follow-up study of the IAA Space Debris Environment Remediation Cosmic Study
- A cosmic study on International Cooperation on Space Weather, joint study between Commission V, and either Commission I or Commission IV, and in coordination with the other Commission.

7/ Acta Astronautica

Kai-Uwe Schrogl reported that a good number of papers have been submitted. He also encouraged members to prepare articles as Acta Astronautica is not limited to IAC papers.

8/ New Initiatives by Commission V

On the occasion of its 50th anniversary, a “Heads of Space Agencies Summit” will be held on 17 November 2010 at the Ronald Reagan Building and International Trade Center in Washington DC with the primary support of Lockheed Martin Corporation and other international sponsors. The attempt is to reach a broad consensus on international cooperation and coordination at the highest level in four areas and eventually consider new concrete initiatives of cooperation. The intent is to foster closer and broader international coordination across the four topics areas to strengthen the effectiveness and support of global space activities. The IAA Board of Trustees has identified four main topics: Climate Change / Green Systems, Disaster Management / Natural Hazards, Planetary/Lunar Exploration and Human Spaceflight. In preparation for the Summit, each topic area will be addressed by an IAA working group that will frame the issues and conduct preparatory work.

Kai-Uwe Schrogl reported that there will be workshop organized by ESPI and ISPRS on 8 – 9 April in Vienna.

9/ Date of next meeting

The next Commission V meeting will be held at the IAA, 6 rue Galilée, 75116 Paris, on March 23, 2010; 8h30 to 9h00 closed meeting all commissions, 9h-11h open meeting. 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.