

## **International Academy of Astronautics**

### **Commission V Draft Minutes of the Meeting**

**Glasgow, UK  
Sunday, 28 September 2008  
8:30 – 11:00**

**Participants:** Sergio Camacho (Co-Chair, Acting chair), Gerard Brachet, Ray Williamson, Nicola Rohner-Willsch (Acting secretary), Bernhard Schmidt-Tedd, Marc Haese, Nicolas L. Johnson, Heiner Klinkrad, Walter Flury, Constantinos Stavriniadis, Frances Brown, Xavier Pasco, Yuki Ishide, Andy Aldrin, Byoungsoo Kim, Henry Hertzfeld, William Ailor, Sridhara Murthi, Petr Lala, Graham Gibbs, Nicolas Peter, Claire Jolly, John Logsdon, Janusz Zielinski, Geir Hovmork, Elisabeth Back Impalomeni, Ernst Fasan, Maurice Andem, Tanja Masson-Zwaan

Excused: Kai-Uwe Schrogl (Chair) (Flight was cancelled; arrived only Sunday afternoon)  
Corinne Contant Jorgenson (Secretary)

#### **1. Welcome / Adoption of the Agenda**

Sergio Camacho gave a short introduction which was followed by adoption of the agenda.

#### **2. Report on the Commission Meeting of 26 March 2008 in Paris**

S. Camacho led a review of the discussions and agreements at the meeting of the Commission held on 26 March 2008 in Paris. He also recalled that the full report is contained in the minutes of that meeting. The comments made and information provided that relate to the status or plans for issues covered under the agenda of the current meeting are reported under the corresponding agenda item.

The first major activity carried out at the meeting in Paris had been the selection of papers to be presented at the Symposium E3 on the basis of the abstracts that had been submitted. For some sessions, many abstracts had been submitted and while a few good ones were kept on standby (taking into account that there are always cancellations), others were rejected because they did not relate to the topic of a session. The second major activity was the confirmation of the 2009 Symposium programme (see below), which had been distributed in draft by the Chairman in March.

#### **3. Status of Symposium E3 at this IAC**

Selection of papers to be presented during the 5 Sessions at the IAC 2008:

Session 1 New Developments in National Space Policies and Programmes: 6 papers to be presented

Session 2 Space Policies and Programmes of International Organizations: 11 papers to be presented

Session 3 Assessing Public-Private-Partnerships in Space Projects: 10 papers to be presented

Session 4 Policy and Regulations Questions in Protection of Environment of Celestial Bodies: 5 papers to be presented.

Session 5 Scientific-Legal Round “Paper Satellites”, speakers by invitation

It was noted that although only one paper was shown as uploaded on the programme appearing on the website for Session 5, Lubos Perek had indicated that the invitations to make presentation have been accepted by all speakers.

In his capacity as Chairman of CLIODN (Committee on Liaison with International Organizations and Developing Nations), Gerard Brachet informed the Commission that he had organized Plenary Event 5, to be

held on 1 October. The Event would include high-level speakers from space agencies, including many from developing countries (Algeria, Argentina, Brasil, Nigeria, South Africa, Thailand,) the Office for Outer Space Affairs and the Office of the Coordinator of Humanitarian Affairs to review the use of space technology in disaster management and the recommendations made by the UN/IAF workshop.

The Commission noted that all sessions had Chairs and rapporteurs even though replacements had been found for some persons who could not attend the IAC 2008.

#### **4. Preparation for the E.3 Symposium at the 2009 IAC (Annex)**

The Commission noted that there was new text, revised by the Academy and given to the IAF for consideration of the Scientific Activities Committee (SAC), to be used for the announcement of the E.3 Symposium in Daejeon. The new text was intended to clarify the owner of the Symposium and to become a model for subsequent announcements. That text was the following:

1. Text given to IAF:

E3. 22nd IAA Symposium on Space Policy, Regulations and Economics

This symposium, organized by the International Academy of Astronautics, will provide a systematic overview of the current trends in space policy, regulation and economics. It covers national as well as multilateral space policies and plans, launcher policies and regulations, which are currently being researched under an IAA Cosmic Study project that also touched upon current policy and economic aspects of space applications. The symposium also integrates the 23<sup>rd</sup> IAA/IISL Scientific-Legal Roundtable, which deals with an inter-disciplinary assessment of commercial human spaceflight.

2. Text revised by the Commission; to be proposed to the SAC:

E3. 22nd IAA Symposium on Space Policy, Regulations and Economics

This symposium, organized by the International Academy of Astronautics, will provide a systematic overview of the current trends in space policy, regulation and economics. It covers national as well as multilateral space policies and plans and economic aspects of space applications. The symposium also includes the 23<sup>rd</sup> IAA/IISL Scientific-Legal Roundtable, devoted to an inter-disciplinary assessment of commercial human spaceflight.

The Commission was informed that the topics of the Sessions for the 2009 IAC that were presented to the SAC at the March 2008 meeting were as listed below. The proposed Chairs and Rapporteurs had all been contacted and confirmed.

Coordinators: Kai-Uwe Schrogl, ESPI, Austria, kai-uwe.schrogl@espi.or.at  
Sergio Camacho, CRECTEALC, Mexico, sergio.camacho@inaoep.mx

E3.1 New developments in national space policies and programmes

Chairs: Gilberto Camara, INPE, Brazil, gilberto@dpi.inpe.br  
Nicolas Peter, ESPI, Austria, nicolas.peter@espi.or.at  
Rapporteur: Deganit Paikowski, Tel Aviv University, deganit.paik@gmail.com

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

Chairs: Mahdi Kartasasmita, LAPAN, Indonesia, kartasasmita@lapan.go.id  
Sylvia Kainz-Huber, EC, Europe, sylvia.kainz-huber@ec.europa.eu  
Rapporteur: Werner Balogh, UNOOSA, Austria, werner.balogh@unvienna.org

### E3.3 Launcher Policies and Regulations

Chairs: Henry Hertzfeld, GWU, USA, hrh@gwu.edu  
 Corinne Jorgenson, Advancing Space Consulting Group, cmj@advancingspace.com  
 Rapporteur: Agnieszka Lucaszczyk, SGAC, Austria, sgac1.officer@spacegeneration.org

### E3.4 International policy and economic aspects of space applications

Chairs: Chin-Young Hwang, KARI, Korea, cyhwang@kari.re.kr  
 Geraldine Naja, ESA, Europe, geraldine.naja@esa.int  
 Rapporteur: Pierre Lionnet, Eurospace, France, pierre.lionnet@europsace.org

### E3.5 23rd IAA/IISL Scientific-Legal Roundtable: Assessing Commercial Human Spaceflight (Invited Papers only)

Chairs: Christophe Bonnal, CNES, France, christophe.bonnal@cnes.fr  
 William Pomerantz, X-Prize Foundation, william@xprize.org  
 Rapporteur: Nicola Rohner-Willsch, DLR, Germany, nicola.rohner@dlr.de

With regard to possible Plenary Event proposal, the Commission noted the following proposals:

#### Plenary events:

1. Main proponent: Ray Williamson (idea introduced during the meeting of the Commission in 2007, Hyderabad)

Topic: Long-term sustainability of outer space

The speakers would be three to four renown international and space policy experts (e.g. Hans Blix)  
 Co-organizers: The Plenary Event could be a joint activity with the new IAF technical Committee on Space Security; the Korean Local Organizers indicated preliminary interest in becoming co-organizers in which case they would suggest holding the Event on Friday to coincide with the Korean day for peace. The Commission noted that this coincidence should be weighed against holding the Event during the first days of the IAC 2009 in order to attract high-level personalities. Tanja Masson-Zwaan indicated that she would explore the interest of IISL in becoming a co-organizer of the Event.

2. Main proponent: Sridhara Murthi (idea introduced during the meeting of the commission in March 2008, Paris)

Topic: Mobile telecommunications

The Event would present the technical progress that has been made in recent years, in both space and ground systems; potential for international partnerships; regulatory issues and potential applications.

The speakers would include CEO of multi-media service providers, satellite manufacturers and at least one expert on regulatory matters.

G. Brachet reminded the proponents that the proposals for Plenary Events must fit into the congress topics and that the completed proposals (using the online forms) need to be prepared by the end of October 2008 to allow sufficient time for consideration by the IPC and decision at its meeting in March of 2009.

As the Commission agrees with both proposals, these should be submitted to the IPC as mentioned previously.

The Commission agree to seek further coordination with the other Commissions in order to build synergies and to minimize duplication of efforts.

### **5. Status of Commission V Study Groups**

The Commission heard update reports about progress made in the Study Groups, SG 5.5, SG 5.6 and SG 5.7 as follows.

i) SG 5.5: Heiner Klinkrad reported on the study on “Space Debris”. The work carried out includes contributions to the report by 20 authors and text is in final editing; the publication of the report is planned for 2009 following the review process by the Academy.

ii) SG 5.6: Marc Haese reported on the study on “Protecting the Environment of Celestial Bodies”. The structure discussed at the kick off meeting at the IAC in Hyderabad where it was agreed that it would be interdisciplinary work as the report would deal with economic, legal and policy issues; 11 authors have contributed draft texts; a second meeting will be held on Wednesday, 1 October 2008 during the presentation of the status of the study at session E3.4 to discuss the next steps to be taken; final texts are planned for March 2009 and a third meeting at IAC in Daejeon where a recommendation is anticipated for final publication.

iii) SG 5.7: Henry Hertzfeld reported on the study on “Launch Regulations and Policies”: Perspectives for the 21<sup>st</sup> century. The study will carry out a comparison of existing regulations in various countries for launches and identify modifications needed to those regulations for launches in 21st century; those regulations would account for developments in launching arrangements and practices; it is intended that the study provide policy recommendations as well. Goal: one author to work on regulations of each selected nation; the group is in discussions with some interested authors.

iv) SG 5.8: Space System and Critical Infrastructure: No information provided at the meeting

Gerard Brachet reminded the study Groups that there are formal procedures to follow for an IAA publication. In particular a review process must be organized early which involves, among other things, finding possible reviewers, explaining to them what is to be done, gathering the comments of the reviewers and sending them to the authors. This process is very work intensive and can take about 6 months. As the Coordinator and Co-coordinator of the Commission organize this review process, S. Camacho asked the authors of the study to include him in the copy of their relevant emails to Kai-Uwe.

### **6. Participation of Commission members in other Study Groups**

The Study Group on Space Debris has contacted Commission III on work that relates the study being prepared. William Ailer indicated that Commission III is interested in having the participation of Commission V concerning the topic of NEOs.

### **7. Proposals for Study Groups and topics for the E3 Symposium at the 2010 IAC**

No additional Study Groups were proposed.

Two ideas on possible topics for the E3 Symposium in 2010 were presented.

1. Ray Williamson: “Sustainability of space activities”. A proposal will be developed following discussions with the IAF Committee on Space Security and with interested persons.

2. Claire Jolly (OECD): “Economic Implications of Space Application”. A proposal will be developed following discussions with the IAF Committee on Understanding Space Economy and with interested persons.

The proponents of the ideas were reminded that the proposals for session of the E3 Symposium need to follow the format provided on the IAA website and in particular should include a description of the session and the proposed Chairs and Rapporteur for consideration by the IPC in March 2009. For that purpose, the proposals should be completed by October 2008.

There were a number of comments from the meeting agreeing with the brief descriptions of content that had been made in connection with both proposals.

Note: After the current meeting, Kai-Uwe Schrogl indicated that the first two sessions of the E3 Symposium, i.e. "New developments in national space policies and programmes" and "Space policies and programmes of international organizations with particular regard to the participation of developing countries" are regular topics of the Symposium. With the IAA/IISL Round Table, whose theme is fixed by the Scientific-Legal Liason Committee, two sessions need to be proposed.

### **8. Commission V contributions to the journals Acta Astronautica and Space Policy**

Frances Brown, Editor of the journal Space Policy encouraged members of the Commission to submit papers to Space Policy. G. Brachet mentioned that while some papers will be better suited for publication in Acta Astronautica, other paper would be better suited for Space Policy and that it was up to the Chairs of the sessions to make the appropriate recommendations. Members are advised to check the guidelines for publishing papers presented in the sessions.

Relevant information provided by ESPI (flyers distributed to participants):

- First release of "Yearbook on Space Policy ". Participants of Commission V are invited to write articles.
- If space policy books are published, ESPI offers to publish them in the new series "Studies in Space Policy" at Springer.

### **9. Any other business**

No other business was brought up.

### **10. Date and place for the next meeting**

Next meeting will take place in conjunction with the 2009 meeting of the IPC. (Date to be determined).