

## **Summary minutes of IAA Commission V meeting, Fukuoka, 8:30 to 11 am, 16 October 2005**

### Participants:

John Logsdon, past Chairman

Gerard Brachet, new Chairman

Kai-Uwe Schrogl, new Vice Chairman and co-leader of Commission V Study Group  
“Space Traffic Management”

Jean-Jacques Favier, member of Commission V;

Heiner Klinkrad, member of Commission V;

Tochifumi Mukai, member of Commission V;

Constantinos Stavrinidis, member of Commission V;

Madhavan Nair, incoming Chairman of IAA Scientific Activities Commission (SAC);

Dick Kline, outgoing Vice Chair of SAC;

Lubos Perek, special assistant to the IAF President;

Petr Lala, co-leader of Study Group “Space Traffic management”;

Christophe Bonnal, co-leader of Commission V Study Group “Space Debris  
Mitigation Guidelines”;

John Hussey, co-leader of Commission Study Group “Study Group Mitigation  
Guidelines”;

Nicholas Johnson, co-leader of the Space Debris working group IAA 5.1;

Fernand Alby, participant to working group IAA 5.1;

Patrick Eymar, co-chairman, Session 3.3 of Symposium E3;

Graham Gibbs, Canadian Space Agency representative in Washington;

Hiroataka Watanabe, rapporteur, Session E3.2 of Symposim E3;

E. Back Impallomeni;

Pierre Bescond;

Claudio Maccone;

Pierre Molette;

### 1/ Opening and introduction of participants

John Logsdon, Chair of Commission V since the Bremen Congress in 2003, opened the meeting and asked each participant to introduce himself.

The list of participants with their contact details is attached (Excel file).

He then introduced the new Chair for the period 2005-2007: Gerard Brachet, who acted as Vice Chair since 2003. The new Vice Chair is Kai-Uwe Schrogl, well known by most participants in Commission V activities, who co-led the Study Group on Space Traffic Management established in 2002.

The Commission V Secretary, Debra Facktor Lepore, could not make it to this conference but has confirmed her wish to continue as secretary of the Commission for the next two years.

Gerard Brachet then took over the chairmanship of the meeting and addressed to John Logsdon his and the Commission’s thanks for his actions and leadership during the last four years, a period during which Commission V has been very active and achieved excellent results.

Gerard Brachet introduced to the participants the official membership of Commission V for the 2005-2007 period. The list of members and their contact details is given in

Annex 2. It was noted that Mukund Rao, whose name appears in both Commission VI and Commission V membership lists will have to decide which of the two Commission he wants to join.

## 2/ Review of agenda

The agenda for the meeting had been distributed by e-mail to all past and new members of the Commission. Gerard Brachet reviewed it for those participants who had not seen it. It is attached as Annex 1.

## 3/ Minutes of Commission V meeting in Paris, 22 March 2005

Gerard Brachet briefly reviewed the minutes of the meeting of Commission V held in Paris last March. Most items of interest are on the agenda for today's meeting.

## 4/ Commission V activities for the IAC 2005 Congress in Fukuoka

The symposium organized by Commission V ("Space Exploration: Policy, Legal and Economic issues") is in very good shape, with many papers and only a few papers withdrawn.

In addition, there is a Scientific Legal Roundtable on Space Traffic Management organized by Kai-Uwe Schrogl with the IISL on Thursday morning Oct 20.

Also, Commission V is organizing the IAC 2005 Plenary Event 4 ("Space systems dedicated to protecting our planet and its inhabitants"), which will be held on Wednesday Oct 19 at 11:40 am.

## 5/ Commission V plans and activities for the congress in Valencia (IAC 2006, Valencia, Spain):

Symposium E3 organized by Commission V will be focussing on "Which Direction in Space? Balancing Applications and Exploration", with four sessions (including one session organized in conjunction with Commission VI on Space Tourism), plus a Scientific Legal Round Table dedicated to nuclear power systems in space.

In addition, Working Group 5.1 on Space Debris will organize its regular symposium on space debris, symposium B6 in the new IAC classification introduced since the Vancouver Congress in 2004.

As for Plenary Events, Commission V could propose one again in 2006, for example on UN Space Activities as suggested by John Logsdon, but a detailed proposal would have to be developed soon and tested with the IAF and the IISL as competition for Plenary Events will be severe in 2006. Their number will be reduced to 7 instead of 9 in Fukuoka. Gerard is taking an action to develop a preliminary proposal within the next two weeks.

Gerard (in his capacity as Chairman of UNCOUOS for the 2006-2007 period) took this opportunity to inform the Participants that he has been in contact recently with the Presidents of both the IAF and COSPAR to discuss the idea of organizing a high level and visible event in 2007, possibly at the UN headquarters in New York City, on the occasion of the 50th anniversary of the launch of Sputnik 1, which marks the

beginning of the Space era. Commission V will be kept informed of what comes out of this initiative in the next few months.

#### 6/ Status of on-going Commission V Study Groups and discussion of possible new Study Groups:

Kai-Uwe Schrogl presented the status of the Study Group on “Space Traffic Management”. The peer review process has taken place over the last few months and the final report incorporating reviewers’ comments is now available in electronic form (a few copies of preprints have been brought to Fukuoka). John Logsdon reminded the co-leaders of the study Group that they should deliver a response to the peer review report. Formal IAA Board of Trustees approval to publish this report as an official IAA report is expected during the coming week. It will then be made available on the public part of the IAA web site ([www.iaa.net.org](http://www.iaa.net.org)). It is also planned that it will be presented by IAA at the UNCOPUOS Plenary Committee meeting in June 2006. Kai-Uwe Schrogl informed the participants that DLR will support the printing of the report in an A5 format.

Due to health problems, Walter Flury, leader of the “Space Debris Mitigation Guidelines” Study Group, was not available for the final phase of the Study Group. Christophe Bonnal and John Hussey, who had led the Launch Vehicles and the Spacecraft sections of the report, took over since the end of 2004. They informed the participants that the final version of the report, taking into account the peer review report delivered to them in late July and comments/corrections from the members of Working Group IAA 5.1 which met the day before, is now available in electronic form. Here also, the formal IAA Board of Trustees approval to publish this report as an official IAA report is expected during the week.

Christophe Bonnal will produce and upload the formal study group status report which is to appear in the IAA web site. Gerard will approach ESA to support the production of a printed version. Also, a presentation of the report during the UNCOPUOS Scientific and Technical Sub-Committee meeting in February 2006 will be organised. The study group members were encouraged to come up with ideas and suggestions to further develop the subject.

#### Proposals for new Study Groups:

##### a) Protection of the Moon Environment

A proposal had been prepared in 2004 by Claudio Maccone on the issue of protection of the Moon’s electromagnetic environment but no study group was set up then. Claudio Maccone presented a new version of his proposal, which focusses on defining areas of the Moon’ surface which would be designated as “protected areas” (concept of “national parks” on the Moon). A proposal will be developed by Claudio Maccone, including names of potential participants. Gerard will request participation from Commission I and will inquire about similar ideas being discussed within COSPAR. The target would be to have a fully developed proposal for this Study Group in time for the March meeting.

##### b) Space and global security

Gerard recalled that the IAA E3 symposium organized by Commission V in Valencia will include a session (E3.3) on “Space and Global Security”, a new topic for the IAC.

Following up from a suggestion from John Logsdon during Commission V meeting last March, a Study Group could be set up on this topic. It must be understood that the word "security" should be taken in its wider sense, including both security of society as a whole and security of the space activities themselves, which are very much related to the issue of space debris, to space traffic management, but also to potential weaponization of space.

c) Launch services and policies

Another idea which was suggested by Kai-Uwe Schrogl is a study of launcher policy and launch services rules and regulations. Patrick Eymar will further discuss the idea with Kai-Uwe. Henry Hertzfeld from George Washington University has stated his interest in participating/co-leading such a study.

d) Space objects

Stemming from discussions in the Scientific-Legal Liaison Committee of IAA and IISL, Lubos Perek and Frans von der Dunk from Leiden University have voiced their interest to set up a study group dealing with the technical and legal implications of the term "space object" (as contained in space law but not properly defined there) together with the question of "useful"/"useless" space objects with regard to space debris. Kai-Uwe will keep contact.

e) Additional note: during the SAC meeting the next day, it was suggested that Commission V could also look at studies of cost vs benefits of space systems for various applications and respective benchmarks.

Peter Swan (Commission VI) asked for a contact person with regard to a study on expectations of the global public vis-a-vis space, which is considered in his Commission.

Gerard explained the process of setting up study groups (as contained in the respective section of the IAA webpage, where also the form is contained) and expressed his hope that by the March meeting, maybe some of the study groups above could be launched.

5/ The next meeting of Commission V is planned during the week of the IPC meeting in Paris next March. (Note: the IPC will meet on March 22 and 23, 2006. IAA Commissions will most probably meet in the morning of March 21)

## ANNEX 1

### **Agenda for IAA Commission V meeting, Fukuoka October 16, 2005 8:30 to 11:30 am**

Opening of the meeting by the outgoing Chair

Registration of participants

Introduction by the outgoing Chair of new Chair and of new vice-Chair

(The new chair takes over)

1/ Presentation of new members and of other participants present at the meeting

2/ Short review of the agenda

3/ Review of report of Commission V meeting in Paris in March 2005

4/ Status of events organised by Commission V in Fukuoka:

- Symposium E3 (formerly IAA.5.13),
- Scientific-Legal Round Table on Space Traffic Management (IAA.5.13/IISL)
- Plenary Event 4 "Space Systems Dedicated to Protecting our Planet and its Inhabitants (October 19)

5/ Status of events organised by Commission V at the IAC 2006 in Valencia:

- Symposium E3 "Which Direction in Space? Balancing Applications and Exploration" co-ordinated by Debra Facktor-Lepore and Gerard Brachet
- Scientific-Legal Roundtable on Nuclear Power Sources

6/ Status of study group reports

- Space Debris
- Space Traffic Management

7/ New study group proposals and ideas

8/ Participation by Commission V representatives to study groups initiated by other Commissions

9/ Date of next meeting (March 2006 in Paris?)

10/ A.O.B.

## ANNEX 2

List and contact details of IAA Commission V members  
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