# IAA Commission 1 'Space Physical Sciences' Meeting Tuesday, 21 March 2006, 8:30 am, Paris, France **Minutes of meeting**

### **Meeting Attendance:**

Michel Combes, Bernard Foing, Alvaro Gimenez, Gerhard Haerendel (chair), Stamatios Krimigis, Ives Langevin, Susan McKenna-Lawlor, Nickolay Smirnov (secretary), Francisco Valero, Peter Wenzel.

### Agenda:

1. Welcome, apologies and adoption of agenda Chair

2. Minutes from October 2005 meeting

3. Study Group activities

3.1 Ongoing studies: SETI (S1.3) SETI representative

3.2 New study groups and leads

- Follow-up from 'The Next Steps...' Bob Farquhar

- Others

4. Program for IAA Day at COSPAR, Beijing, July 2006 Chair

5. Program for 57<sup>th</sup> IAC, Valencia, Spain, October 2006

- Highlight Lectures/Plenary events

6. Commission Membership 2005 – 2007

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7. Next meetings

a. COSPAR, Beijing, July 2006

b. IAC, Valencia, October 2006

8. Any Other Business

#### 1. Welcome

Gerhard Haerendel, Commission 1 Vice-Chair, was chairing the meeting. He warmly welcomed the attendees. Participants introduced themselves.

### 2. Minutes from Fukuoka meeting in October 2005

These were approved.

#### 3. Study group activities

- 3.1. Ongoing studies: SETI (S1.3) Permanent Study Group. No SETI representative was present.
- 3.2. The text of proposal on "The Next Steps for Human Space Exploration: What are the Alternatives?" was prepared and submitted by Bob Farquhar. It was discussed and approved. Commissions 3 and 4 should be contacted to solicit their interest in participating.
- 3.3. A new Study Group proposal on 'Particle Radiation Hazards en route to, and in orbit about, Mars' was prepared and presented by Susan McKenna, following the discussion during the Commission 1 meeting in Paris, March 2005. On presenting the proposal she emphasized the international character of the proposed research group, which would include representatives of 10 countries. The proposal was discussed by Commission members. Gerhard Haerendel asked about the mitigation aspects of the study. The answer stated that major aspect was early warning of the particle flow hazards. The study of different types of protective shielding was not planned due to the short proposed time period (3 years).

Stamatios Krimigis suggested that some people working in shielding design should be included into the study group. Bernard Foing suggested that medical people should be included in the group as well. Nickolay Smirnov and Francisco Valero suggested to change the title not to be so concentrated on Mars mission, but make the scope wider: beyond LEO. Peter Wenzel noted that considerations of biological effects by the study group had been suggested earlier and that he had communicated references to previous studies by space agencies and other study groups to the proposer.

The proposal was found to fulfill all formal requirements. Commission members decided to support the proposal approval and appointing Susan McKenna-Lawlor as chair.

3.4. Others. The need of RTGs for science missions to the outer planets was addressed. Gerhard Haerendel reported on the planned activities of the European Space Science Committee (ESSC) of the ESF. Peter Wenzel noted that previous contacts with the former C3 Chair on mutual activities (e.g. C1 participation in S3.2) had been unsuccessful.

There will be joint session at the 57<sup>th</sup> IAC in Valencia. R. McNutt will play a leading role.

## 4. Program for IAA Day at COSPAR, Beijing, July 2006.

- 1. Talk of the president, Chinese Authorities.
- 2. Presentation of on-going studies.
- 3. Report.
- 4. Organized scientific lectures: 2 talks on double star mission, 1 talk on Chinese Space program.

# 5. Program for 57<sup>th</sup> IAC, Valencia, Spain, October 2006

Nickolay Smirnov reported on the plans for highlight lectures and plenary events at the Valencia Congress, which had been communicated by Dick Kline and Berndt Feuerbacher.

Sunday, October 1- Academy Day

• PM (15:00-18:00) <u>Scientific</u> Lecture(s)

Monday, October 2

- PM (13:30-15:20) Plenary Event 1: Heads of Agency
- PM (18:40-19:40) Highlight Lecture 1: "Voyager Explores the Final Frontier of the Solar System"

Tuesday, October 3, 2006

- AM (09:00-10:00) Plenary Event 2: "Operational Earth Monitoring Systems-Challenges for 2015, Actions Required Today"
- PM (14:20-15:20) Plenary Event 3: "Mapping the Journey: Agency Strategies for Space Exploration"
- PM (18:40-19:40) Highlight Lecture 2: "Venus Express Exploring Earth's Nearest Planetary Neighbour"

Wednesday, October 4

- AM (09:00-10:00) Plenary Event 4: "Major Space Markets in the next 20 years and the corporate approach for success"
- PM (14:20-15:20) Plenary Event 5: "Enabling the Frontier: Regulatory Challenges to the Utilization of Space"
- PM (18:40-19:40) Highlight Lecture 3: "The Origin and Development of the Universe" Thursday, October 5
  - AM (09:00-10:00) Plenary Event 6: "Life on Mars? Lessons from Spain"

Friday, October 6

- AM (09:00-10:00) Plenary Event 7: "The Impact of Space Exploration on Society"
- PM (14:20-15:20) Plenary Event 8: "The United Nations and Space: looking forward to the second half century of space activities"
- PM- Public Day- Presented in Spanish with English translation Part I (Plenary Event 9): Space Cultural Applications

Part II (Plenary Event 10): Astronaut Session "Living Your Dreams"

Part III Open Forum

#### 6. Plenary for Hydarabad Congress in 2007

There was a suggestion by Bernard Foing to have a plenary event on Mars missions. He was ready to take the burden of co-ordinator.

## 7. Commission Membership 2005 – 2007

The newly composed Commission 1 (see IAA C1 web site) became effective after the Fukuoka IAC in October. Gerhard Haerendel remarked that young Corresponding Members of the Academy should be involved in the work of Study Groups.

## 8. Next meetings

Commission 1 suggested two successive meetings:

- a. COSPAR, Beijing, July 2006 (room and time should be agreed with the COSPAR secretariat);
- b. 57-th IAC, Valencia, October 2006 (The meeting is scheduled on October, 1, morning).

# 9. Any Other Business

Gerhard Haerendel thanked all participants for their participation and wished fruitful work in preparation of the 57<sup>th</sup> IAC Program.