

IAA Commission 1 'Space Physical Sciences' Meeting  
Sunday, September 30, 2012 during 8:30 - 10:00 a.m.  
Congress Center Mostra d'Oltremare  
Naples, Italy

**Minutes of the meeting**

**Meeting Attendance:**

Nickolay Smirnov (secretary), Stamatios Krimigis, Mazlan Othman, Stephan Ulamec, Susan McKenna-Lawlor, Gerhard Schwehm, Claudio Maccone, Ralph McNutt, Bernard Foing, Bernard Zappoli.

**Agenda:**

1. Welcome –
2. Self-introduction of Commission 1 members, and invited participants – All
3. Minutes from Paris meeting – Nickolay Smirnov
4. Report on the IAA Study Group activities: status, progress reports. – Susan McKenna-Lawlor and Claudio Maccone
5. Fourth AA Symposium on “Search for Life Signatures” report – Claudio Maccone
6. Report on SETI permanent Committee – Seth Shostak, Committee Chair
7. Proposals for new Study Groups
8. Commission 1 relevant events at the 63rd International Astronautical Congress
9. New business

The following topics were discussed at the Commission 1 meeting.

**1. Welcome and adoption of agenda**

Nickolay Smirnov, Commission 1 Secretary-Academician, welcomed the attendees. The agenda was adopted.

**2. Self-introduction of Commission 1 members, old and new.**

All Commission members and attendees introduced themselves.

**3. Minutes from Paris Meeting on March 12, 2012, (see homepage)**

Nickolay Smirnov presented the minutes. Minutes were approved.

Action items from the Paris meeting were the following.

1. It was suggested that the Review process of the book on particles radiation hazard should be finalized and the book was sent to the publisher. The successful fulfillment of the item was reported by Susan McKenna-Lawlor.

#### **4. Study Group activities: status, progress reports.**

##### ***Study Group 1.5. Particle radiation hazard en route to and at Mars.***

Susan Mckenna-Lawlor presented the Status report on the Commission I book. The review process was finalized and the book was recommended to be sent to the production office. However, there had been made several suggestions on improving the style of chapters and material arrangement. Among those there had been suggestions to have chapters, not separate papers, which means to have one list of references, unique numbering, etc., which was approved by the Commission members. However, there had been a suggestion to remove authors' names from the chapter titles, which was not adopted by the Commission members. In particular, Gerhard Schwehm emphasized, that it was necessary for the authors to be seen on the web or in the printed version. Bernard Foing suggested, that authors could publish their chapters independently as separate papers in the archival journals. Nickolay Smirnov suggested that we should follow the advice provided by the Reviewer to remove the names from Chapter titles, but Susan should introduce the "list of contributors" – a special section just following the preface, wherein all contributors' names and affiliations should be provided in an alphabetical order including indication of Chapters to which they made contributions.

**Action item:** To develop an answer to the letter of H.P.Roeser on our vision of author list and the necessity to have ISSN number for the publication.

##### ***1.6. Protected antipode circle of Lunar far side.***

Claudio Maccone – the group leader – has reported on the topic. The results of the study were partially published in Acta Astronautica, and now the group is waiting for another important chapter concerning the legal issues, for which Tanja Masson-Zwaan was contacted. Besides, Claudio Maccone emphasized that to finalize the study he needs additional contributions on Moon missions planned. Bernard Foing was asked to provide this data. Another issue was the data on particle radiation hazard on the Moon far side. Susan Mckenna-Lawlor promised to take care of this issue.

The Commission agreed with Claudio Maccone that it would be difficult to finalize the study this year, and came to a decision, that this study should be finalized in 2013.

#### **5. Fourth IAA Symposium on "Search for Life Signatures" report –**

Claudio Maccone provided the report about the San Marino Symposium, that had just finished a day before. The detailed information can be found on the web:

<http://iaaweb.org/iaa/Scientific%20Activity>

The symposium was a great success. Three Commission 1 members participated in the Symposium. Along with a very interesting agenda of Symposium presentations the participants visited the greatest radio telescope in Medicina. On the way from San Marino to Naples a stop was made in Rome, wherein a Ceremony for SETI League annual Prize Award took place near the monument of Giordano Bruno. The participants arrived in Naples by midnight. That was the reason for having Commission 1 meeting on Sunday morning.

## **6. Report on SETI permanent Committee –**

Seth Shostak, Committee Chair, reported on the status and progress. He emphasized that the success of Kepler experiment brought to our knowledge many planets – candidates for life search.

As for redrafting SETI protocols still no action has been taken. We discussed the new Declaration optional activities in case of signal detecting in the Commission 1 since 2007 in Hyderabad. It is necessary to deliver it to UN COPUOS, or, at least, approve by the Academy, as it had been suggested by Commission 1 several times. Declaration is only a type of recommendation, suggestion but not compulsory regulation. Probably new subcommittee is needed on societal aspects of detection extraterrestrial signal.

Besides Seth Shostak expressed the Commission 6 being worried that having a Symposium on “Search for Life Signatures” (Symposium TBC) prior to IAC could reduce number of participants on SETI Symposium within the Congress. There was also a remark from Commission 1 members, that in case both meetings take place in one and the same vicinity it should not bring to reduction of participation, because people would attend both.

Mazlan Othman and Tom Krimigis inquired at Board of Trustees meeting regarding the status of the SETI declaration. They were told that it will be circulated again, this time with new rules of endorsement applying, i.e., no response means consent.

## **7. Proposals for new Study Groups**

Having analyzed the situation on microgravity science and Space based studies, as well as the ISS perspectives, Commission 1 members decided that it was timely to establish a study group to answer the question: what should be beyond the ISS. It was also suggested to have a topic formulated wider, which means to investigate the role and impact of microgravity studies on terrestrial science and processes, and its contribution to the overall scientific advances. Bernard Zappoli being responsible for microgravity studies at CNES, was asked to take care of preparing

the proposal and submitting it to the Academy. Nickolay Smirnov was asked to contact Microgravity Science Committee of the IAF to establish joint work in the Study Group.

Mazlan Othman: I welcome the new study proposed on microgravity science. I have two points to make:

- a) there is a group under Guiseppe Reibaldi, called the Human space flight coordinating group, which looks at human space exploration and there could be synergies in the efforts;
- b) we should not confine our thoughts to ISS as China is expected to have a fully operational space station by 2020.

I also need to add that the UN has launched the Human Space Technology Initiative (HSTI) which will focus on encouraging developing countries to develop science experiments in microgravity conditions.

#### **8. Commission 1 relevant events at the 63rd International Astronautical Congress –**

Commission 1 members named A2 Symposium Microgravity Science and Processes, A4 – SETI, A3 and A5 on exploration.

#### **9. New business.**

No new business.