

International Academy of Astronautics

6, rue Galilée, 75116 Paris

<http://www.iaaweb.org>

IAA Commission 1 on Space Physical Science

Minutes

23 September 2017 – 13h00-16h00

Adelaide, Australia

Attendees:

Nickolay Smirnov (Russia), past Chair

Susan McKenna Lawlor (Ireland), Chair

G. Schwehm (Germany); Cl. Maccone (Italy); T. Krimigis, (USA) and A. Viviani (Italy), X. Zhang (China), U. Wang (China).

1. Welcome

Nickolay Smirnov

On welcoming the Commission members and attendees Nickolay Smirnov introduced the new Commission1 Chair Academician Susan McKenna Lawlor

2. Adoption of the Agenda

Nickolay Smirnov

That was adopted

3. Adoption of the Minutes of the last Commission meeting, 20 March 2017, Paris meeting

Nickolay Smirnov

That was approved

4. IAA Cosmic Studies

Susan McKenna Lawlor

4.1 Current Studies

Study Group 1.6 Chair or representative: Cl.Maccone

Protected Antipode Circle on Lunar Farside

The study is finalized, final report submitted. Position paper published in Acta Astronautica.

Study Group 1.9 Chair or representative: Yatskiv/Milinevsky

Satellite remote sensing of aerosols in the Earth atmosphere

Status report was received, but it did not contain any description of performed work – only promised work. The Commission 1 considered, that instead of establishing international co-operation the team was working independently of all other studies in the world in the field of aerosols, at least, that is the opinion the Commission 1 members got on having read the report. It is recommended to ask the Academy writing the letter to the Study group recommending them 1) submitting detailed report on their activities, 2) integrating their research in the on-going world studies.

Study Group 1.11 Chair or representative: Ramachandran/Ocampo

Comparative Climatology - Studying Planetary Climate to Understand our Planet

The Commission 1 is not convinced of the study being a valuable piece of science. The team should provide a more detailed report including plans and schedule for future research and the expected results.

Study Group 1.13 Chair or representative: Baker/Vane/Bousquet

Planetary Science Enabled by the New Generation of Cube-Sats and Miniaturized Scientific Instruments

The text of the final report is under peer review in the Academy.

Study Group 1.14 Chair or representative: Bao Weimin/Kuznetsov

Integrated Precursor Distinguish in Multi-Geophysical Fields around Global Earthquake Events with Magnitude larger than 7 in Recent 10 Years

The presentation on the results of the study was done by X. Zhang and U. Wang. Commission 1 asked the presenters to present the draft version of the report to the Commission 1 members for deriving conclusions based on detailed report, but not power point presentation.

Study Group 1.15 Chair or representative: McKenna-Lawlor

International Cooperation on Space Weather

The paper for Acta Astronautica is under development. The Chair needs some help from the Academy to find people from industry to be involved into the Study group. As for now 7 people from different countries agreed to join the group (Ireland, India, Germany, Portugal, USA,...) and other 10 received invitations.

Study Group 1.16 Chair or representative: Conley/Race

Expanding Options for Implementing Planetary Protection during Human Space Exploration

Report was submitted timely. Commission 1 recommends following the declared time-line.

4.2 New Studies Proposals

All

4.2.1. Where the Moon Village should be located

Claudio Maccone

Placing inside the antipode circle is not recommended. It is time now to discuss the problem and merge the activities of different groups. The Commission 1 supported this study.

4.2.2. Legal challenges in private Space exploration

Gerhard Schwehm

The Commission 1 supported this study.

5. IAA Conferences

5.1 *Current IAA Conferences*

The 4-th Space Flights Safety symposium — the international action consolidating the international efforts on safety of space flights at new scientific and technological level was held in St. Petersburg to the period since July 3 on July 5, 2017. The special issue of Acta Astronautica is under development based on results of Symposium.

5.1.2 *IAA Symposia at IAC*

The Commission 1 follows 2 Symposiums at IAC: A.2. Microgravity Science and processes Symposium; A.4. SETI Symposium

5.2 *New Conferences proposals*

Susan McKenna Lawlor

The 5-th Space Flights Safety symposium is expected to be held in St. Petersburg in June 2018. The Commission 1 supported the proposal for the Symposium.

6. Report from the IAA Permanent Committees

7. IAA Heads of Space Agencies Summit

Susan McKenna Lawlor

8. Other Business

Susan McKenna Lawlor

8.1. Academy day in the forthcoming COSPAR meeting.

Two presentations were suggested from the Commission1.

1) Claudio Maccone "Protecting the Moon antipode circle".

2) Susan McKenna Lawlor "Radiation Hazard on route to Mars"

8.2. Suggestions for new members of Commission 1:

David Spencer

Woo Gee

The suggestion was accepted.

9. Adjourn