# Report on Commission 1 meeting Paris, 20 March 2017

Rosaly Lopes, Secretary

### Attendees:

- N. Smirnov, Chair
- S. McKenna Lawlor, Vice-Chair
- R. Lopes
- R. McNutt
- G. Schwehm
- S. Ulamec
- J. Zhang
- C. Maccone
- B. Zappoli

#### 1. Welcome

N. Smirnov and Susan McKenna-Lawlor welcomed attendees. Members present (listed above) introduced themselves.

## 2. Adoption of agenda:

The agenda was adopted unanimously

## 3. Adoption of the Minutes of Commission 1, Guadalajara meeting, Sept. 2016.

Susan McKenna-Lawlor reported that she was the only representative of Commission 1 at Guadalajara and so presented the status of the Study Groups at the SAC. Her minutes were adopted unanimously.

# 4. IAA Cosmic Studies reports

<u>Study Group 1.5</u>: The energetic particle radiation hazard en route to and at Mars. Lead: S. McKenna-Lawlor. Susan McKenna-Lawlor reported that the study was published, and showed it at meeting.

## Study Group 1.6: Lunar Farside Protection

Lead: C. Maccone. Claudio Maccone reported at meeting. Study report was adopted. Discussion about a follow-up study on Exploring the Noiseless Far Side of the Moon. Proposal needs to be sent to Commission 1.

<u>Study Group 1.8:</u> Global satellite system for monitoring and forecasting of the Earth's seismic activity

Lead O. Degtyarev

Degtyarev reported at meeting. Study reviewed and presentation made at Academy Day 2016, will go on to publication.

Study Group 1.9: Satellite remote sensing of aerosols in the Earth's atmosphere.

Lead: Y.Yatskiv

Interim report received (short, not final).

Study Report 1.10: Terrestrial analogue. Comparison of terrestrial and planetary geology.

Lead: M. Coradini

No report or communication received for more than a year, recommend study to be closed.

<u>Study report 1.11:</u> Comparative climatology: Studying planetary climate to understand the planet.

Lead: R. Ramachandran.

No report received. (Update: Progress report received in September 2017) from Radhika Ramachandran.

Study report 1.12: Virtual planet. Virtual exploration of planets.

Lead: M.Coradini.

No report or communication received for more than a year, recommend study be closed.

<u>Study Report 1.13</u>: Planetary science generated by the new generation of cubesats and miniaturized scientific instruments

Leads: Baker/Vane/Bousquet. Final report received, presented at Academy Day 2016 but not presented at this meeting. It is under pre-review by the Academy.

<u>Study Report 1.14:</u> Integrated precursor. Distinguish in multi-geophysical fields around globa Earthquake events with magnitudes larger than seven in recent ten years.

Lead: Bao Weimin.

Short status report received. Appears that there was no progress since last meeting. Recommend presenting more detailed report from a technical perspective. Recommend study leaders contact Study team 1.8 for possible areas of overlap.

Study report 1.15: International Cooperation on Space Weather.

Lead S. McKenna-Lawlor

Status report received and presented. Proposal submitted for revised study, group kicked off in Guadalajara. 10 nations invited, 15 participants. Fabrice has sent out invitations. Still waiting for some confirmations. Susan asked for suggestions.

<u>Study report 1.16</u>: Expanding options for implementing planetary protection during human space exploration.

Lead: S. Conley. Status report received by Commission 1 and distributed at meeting.

Recommendation from those present: Close studies 1.10 and 1.12

## 5. Conferences IAA

## 5.1. Current IAA Conferences.

IV Symposium on space safety. Details to be put in Academy website.

LCPM12 conference in Pasadena, California, USA. 15-17 August 2017 (www.lcpm.org)

5.1.2 IAA Symposia at IACno report5.2 New conference proposalsno report

## 6. Report from the IAA Permanent Committees

Report from C. Maccone on IAA Permanent Committee on the Search for Extra-Terrestrial Intelligence (SETI). Reported substantial increase in interest, 27 abstracts submitted to last IAC, 16 for IAC in Australia. Expect more in meeting in Germany next year. Reported that China opened a large dish and might become main country to participate in SETI, would like one Chinese representative in committee.