

**International Academy of Astronautics**  
6, rue Galilée, 75116 Paris  
<http://www.iaaweb.org>

**Commission 4 Space Operation and Utilization**

**AGENDA**

**29 September 2018 – 13h00-16h00**  
**Bremen, Germany**

**1. Welcome**

Commission Chair

The commission IV is chaired by vice chair Rene Laufer (on behalf of commission chair Akira Tsuchida) and Secretary Paolo Gasbarri, who both welcomed all participants - members and friends of commission IV.

As a reminder Commission IV leadership 2017-2019 is as follows

CHAIR	<b>Tsuchida, Akira (Japan)</b>
VICE CHAIR	<b>Laufer, Rene (Germany)</b>
SECRETARY	<b>Gasbarri, Paolo (Italy)</b>
PAST CHAIR	<b>Ovchinnikov, Mikhail (Russia)</b>

The meeting chair introduces the planned agenda.

Dr. Laufer shared information of the IAA plenary commission meeting, which he attended on behalf of commission IV chair Dr. Tsuchida:

- On the status of the studies of the other commissions: commission IV was recognized within the top of the commissions for the status of its study groups. The Secretary General informed that not all new study group proposals are sufficient in quality to be accepted.
- Chairs and rapporteurs of IAA program committees - in example within the IAC as well as of stand-alone conferences - should submit reports of the status of the sessions to the IAA. It will be compiled for an annual scientific report. This will be communicated and advertised through the program committee meetings if possible.

**2. Adoption of the Agenda**

Commission Chair

The planned agenda is accepted.

### **3. Adoption of the Minutes of Commission 4, Paris March 2018 meeting**

The meeting chair stated that due to most of the participants having attended also the Spring Meeting in March 2018, and the availability of the minutes online it is assumed and recommended that everyone read it in advance .

## **4. IAA Cosmic Studies**

Commission Chair

### *4.1 Current Studies*

**Study Group 4.8** Chair or representative: Esper/D'errico/Herrel/  
Mendham  
**Public Space Systems Cross-Compatibility**

As stated during the Spring Meeting 2018: The report was delivered as conference paper at the Small Satellite Symposium in Berlin 2015 and the study group was closed. Commission IV asks the IAA office to update that status and remove the study group from the list.

**Study Group 4.16** Chair or representative: Alkalai/Graziani/  
Bousquet/Laufer  
**The Applications of Micro-Satellites and Cube-Sats to Planetary Science and Exploration Missions**

As stated during the Spring Meeting 2018: Based on a decision at IAC 2018 and confirmed at IAC 2017 the study group was cancelled. Commission IV asks the IAA office to update that status and remove the study group from the list.

**Study Group 4.17** Chair or representative: Cappelletti/Graziani/  
Massimiani  
**Space Systems for Biomedical Research**

The study is ongoing. Prof. Graziani reported and asked for new members to join the SG. Action Item: Advertise SG 4.17 - especially during October 2 small satellite committee meeting

**Study Group 4.19** Chair or representative: Horikawa/Coradini  
**Promoting Global Space Knowledge & Expertise in Developing Countries**

The request for delivering the report was sent out. Commission IV did not receive a feedback yet. Action Item: The request is open.

**Study Group 4.20** Chair or representative: Bao Weimin/Contant  
**Space Information Application in Earthquake Emergency Response**

A report was submitted: The study is ongoing.

**Study Group 4.21** Chair or representative: Belokonov/Schilling  
**Distributed, Networked, Smart, Cooperating Small Satellite Formations**

Prof. Schilling reported the study is ongoing. More than 100 pages have been contributed so far to the report

Action item: Advertise SG 4.21 - especially during October 2 small satellite committee meeting.

#### **Study Group 4.22 Chair or representative: Teofilatto/Filatyeu Through Optimization of Aerospace Trajectories**

Prof. Graziani reports that there is a content but the SG needs more people to continue the work.

Action item: Advertise SG 4.22 - especially during October 2 small satellite committee meeting.

#### **Study Group 4.23 Chair or representative: McKnight/Hanada/da Silva/Martinez Post-Mission Disposal for Micro and Smaller Satellites: Concepts and Trade Studies**

Dr. McKnight reported on the SG: Kick-off after approval at Spring Meeting 2018. A first version was compiled in July 2018, a second version will be available in November 2018. A draft report is expected for Paris Meeting in 2019. The SG is ahead of schedule.

#### **Study Group 4.24 Chair or representative: Mugellesi-Dow Knowledge Management for Space Applications**

A report was submitted: The study is ongoing. During the conference in Montevideo, recruiting of members for the SG was done and a meeting was held.

### **New Studies Proposals**

Prof. Xue Huifeng presents goals and objectives of a proposed SG on the following main topics: Integrated satellites network.

The proposal will be shared with the members and officers of commission IV.

Initial suggestions from commission IV include: to open the proposed SG to members of other countries. During the discussion it was pointed out that Internet of Things or Internet of Space are topics that are related to the proposed SG. Commission IV also suggests to nominate a co-chair and secretary for the SG.

### **5.1 Current IAA Conferences**

#### **5.1.1 3<sup>rd</sup> IAA Latin America Cubesat Workshop, Ubatuba, Brazil, 03-07 December 2018.**

**Program Committee Chair or representative: C. Cappelletti/ M. Ovchinnikov**

A report was sent about the status of the organization of the conference and the relevant topics addressed.

#### **12<sup>th</sup> IAA Symposium on Small Satellite for Earth Observation, Berlin, Germany, 06-10 May 2019.**

**Program Committee Chair or representative: M. Hetscher**

A report was provided by Martin Buscher and Rainer Sandau: the call for abstracts have been released. DLR is hosting the conference. All activities according to schedule. More than 250 participants are expected.

Action Item: Advertise the conference at the October 2 small satellite committee meeting

IAA Space Flight Safety Symposium, Saint-Petersburg, Russia,  
24-27 September 2018  
Program Committee Chair or representative: N. Smirnov

Commission 4 requests a symposium report.

4<sup>th</sup> IAA-RACTs Scientific and Technological Experiments on Automatic  
Space Vehicles and Small Satellites (SPEXP), Samara, Russia, 04-06  
September 2018 Program Committee Chair or representative: I.  
Belokonov

A report was provided by I. Belokonov: the conference was held in September and well  
attended by participants from Russia as well as from several other countries. Universities  
and SME's from Russia were well represented. The suggestion is to advertise the  
conference to increase international participation.

The Sixth UNISEC-Global Meeting, November 19-21, 2018, Strasbourg,  
France

A report was provided by Rei Kawashima: The UNISEC-Global secretary general  
illustrates the status of the organization and the topics addressed during the conference.  
150 attendances are expected.

13<sup>th</sup> IAA Low-Cost Planetary Missions Conference,  
Toulouse, France, 03-05 June 2019  
Program Committee Chair or representative: L. Suchet

The conference was advertised.

IAA Cubesat Winter Workshop in Europe 2020, TBC  
Date, Place: TBD  
Program Committee Chair or representative: TBD

The workshop was advertised, more information will be available at Spring Meeting  
2019.

Pico and Nano Satellite Workshop  
Date, Place: TBD  
Program Committee Chair or representative: K. Schilling, M. Buscher

The workshop was advertised. 150 participants are expected. The workshop organizers  
seek to include IAA as co-hosting organization. Rainer Sandau clarified steps of such  
request.

2nd IAA Latin American Symposium on Small Satellites: Advanced  
Technologies and Distributed Systems,  
Date and Place: 11-15 November 2019, Buenos Aires, Argentina.  
Program Committee Chair or representative: L. Gratton

The symposium was advertised. Livio Gratton presented the status of the follow-up  
symposium after last years successful first regional IAA symposium in Latin America.

### 5.1.2 IAA Symposia at IAC

51<sup>st</sup> IAA symposium on safety, quality and knowledge management in space activities, Bremen, Germany (IAC D5)

Program Committee Chairs or representatives: J. Holm/ R. Mugellesi-Dow

The status was presented. Four sessions with each 12 papers per session were selected. Solid submission rate and participation over the years.

25<sup>th</sup> IAA symposium on small satellite mission, Bremen, Germany (IAC B4)

Program Committee Chairs or representatives: A. da Silva Curiel/ R. Hornstein

The status was presented by Alex da Silva: the number of submissions was again very high, the symposium now ranks within the top 3 IAC symposia for about a decade. Growth due to increasing submissions only possible through joint sessions with other symposia. About 120 papers will be presented. Chairs and rapporteurs of the sessions cover various and wide range of different topics and are defined - overall a experienced team for many years. Two key notes lectures will be presented. Program committee meeting together with permanent committee meeting on October 2.

19th UN/IAA workshop on small satellite at the service of developing countries, Bremen, Germany (IAC B4.1)

Program Committee Chairs or representatives: Hui Du / Sias Mostert

Part of the B4 symposium..

### 5.2 *New Conferences proposals*

All

Prof. Graziani reports on the proposed Symposium on Space Debris Observation in July 2019.  
Prof. Graziani reports on the proposed 5<sup>th</sup> IAA Conference on University Satellite Missions and CubeSat Workshop for January 2020.

## 6. Report from the IAA Permanent Committees

IAA Permanent Committee on Small Satellites

Co-Chairs: R. Sandau, R. Laufer, A. da Silva

Secretary: M. D'Errico, F. Santoni

New co-chair A. da Silva (after R. Hornstein's notice of retirement from her positions) and new co-secretary F. Santoni introduced. Meeting on October 2.

## 7. Other Business

All

No other business or requests.

## 9. Adjourn

R: Laufer and P. Gasbarri thank everyone for their participation, wish a successful IAA Academy Day and IAC and invite everyone for the next meeting in Paris in March 2019.

## COMMISSION IV

29 / SEPTEMBER / 2018

SIGNATURE

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