

# International Academy of Astronautics

6, rue Galilée, 75116 Paris

<http://www.iaaweb.org>

## Commission 4 Space Operation and Utilization

### Minutes of Meeting

**24 September 2016 – 13h00-15h00**

**Guadalajara, Mexico**

Appendix-1 shows participants of this meeting.

#### **1. Welcome**

Commission Chair

Vice-Chair Tsuchida informed summary of "Commission Plenary Session (restricted)" held right before this commission 4 meeting. (1) Each commission should have active member who can be appeared on each meeting, recently many commission members cannot join this meeting. (2) Study Group should be finalized (final report) within 3 years as planned. Some study group took 8 years.

Also Vice-Chair Tsuchida reported Vice-chair and secretary Balint participated "Space Debris permanent committee" meeting in this morning. Space Debris Permanent committee suggested a joint session between the Space Debris (A6) and the Small Satellite (B4) tracks at IAC2017. Commission 4 member discussed that Laufer will start establishing communications with Space Debris Permanent Committee to refine the details on possible cooperation. In addition, Commission 4 wants to consider creating a new study group for this; This will be explored and presented at the 2017 Spring meeting. (See 4.2 new study proposal.)

#### **2. Adoption of the Agenda**

Commission Chair

Vice Chair Tsuchida worked through planed agenda.

#### **3. Adoption of the Minutes of Commission 4, Paris March 2016 meeting**

Commission Chair

Vice Chair recommended reading this by them.

## 4. IAA Cosmic Studies

### 4.1 Current Studies

For other study groups under commission 4 (i.e. SG4-8, 9, 11, 16, and 17), commission 4 leadership will follow up and report at the Paris Meeting 2017. (For SG4-16, Dr. Leon Alkalai informed that SG4-16 leadership will have a follow up meeting on Sep 29 in Guadalajara, Commission 4 vice-chair Tsuchida stated he is going to join this follow up meeting.)

#### **Study Group 4.18 Chair or representative: Cho/Graziani/Polansky Definition and Requirements of Small Satellites Seeking Low-Cost and Fast-Delivery**

Final draft report is now under review in commission 4 leadership. Unfortunately Dr Cho could not join commission 4 meeting. Vice Chair Tsuchida stated he is meeting with Dr Cho during IAC2016 Guadalajara and report to commission 4 Chair Dr Ovchinnikov to discuss how we can proceed this report. And for SAC, we report as "Final draft report was released in March 2016, and under review."

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

Dr. Horikawa could not participate this meeting. Dear Jeanne Holm informed status for Dr. Horikawa. And for SAC, we report as "study group chair was replaced from Dr. Mazlan Othman to Dr. Yasushi Horikawa, and reestablishing activities (4 hands on training sessions in Africa – Kenya, Sierra Leone, Uganda, Tansania), interim report planned for the Spring meeting 2017."

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

Dr. Bao Weimin could not participate this meeting. And for SAC, we report as "Presented 1st draft at Spring meeting we are coordinating so that we can provide next report at the next spring meeting."

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

Dr. Klaus Schilling briefly explained using status provided in March. And for SAC, we report as "1st draft report due: IAC2017".

### 4.2 New Studies Proposals

All

These three items are suggested before this meeting; however no actual proposals were shown. To report SAC, Commission 4 determined as "TBC in Paris-2017)

- Knowledge management and Integrate Application (Big Data) - Potential Chair is Mugellesi Roberta (ESA)
- Implementation and Reliability Issues of Space Debris countermeasures of Small satellites - Potential Chairs are Alex Da Silva and Rei Kawashima
- The Optimization of Branching Aerospace Trajectories – Potential Chairs are Paolo Teofilatto and Alexander Filatyev

## 5. IAA Conferences

### 5.1 *Current IAA Conferences*

#### 5.1.1 12<sup>TH</sup> IAA SYMPOSIUM ON SMALL SATELLITE FOR EARTH OBSERVATION,

24-28 April 2017, Berlin, Germany

Program Committee Chair or representative: R. Sandau

4<sup>th</sup> IAA Cubesat Winter Workshop in Europe

October, Bulgaria

Program Committee Chair or representative: R. Sandau

9<sup>th</sup> Pico and Nano Satellite workshop

September 2017, Wurzburg, Germany

Program Committee Chair or representative: K. Schilling

4<sup>th</sup> IAA-RACTs Conference Scientific and Technological Experiments on Automatic Space Vehicles and Small Satellites

Samara, Russia: Date: TBD

Program Committee Chair or representative: TBD

#### 5.1.2 IAA Symposia at IAC

49th IAA symposium on safety, quality and knowledge management in space activities, Guadalajara, Mexico (IAC D5)

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

20th IAA symposium on small satellite mission, Guadalajara, Mexico (IAC B4)

Program Committee Chairs or representatives: A. Da Silva Curiel/

R. Hornstein

18th UN/IAA workshop on small satellite at the service of developing countries, Guadalajara, Mexico (IAC B4.1)

Program Committee Chairs or representatives: S. Mostert/W. Balogh

### 5.2 *New Conferences proposals*

All

These two conferences were proposed, as a commission 4, we are going to explain these two at SAC meeting. (And SAC approved these two on the same day. (Akira Tsuchida added.) Dear Rainer Sandau, please go ahead to send these proposal to IAA Secretary and IAA Secretary General to proceed paper work. IAA Secretary General JM Contant gave me a verbal approval during SAC meeting.)

- 1st IAA Latin American Symposium on Small Satellites – Advanced Technologies and Distributed Systems

- Date, Place: March 7th to March 10th 2017, Buenos Aires, Argentina
- proposed by Livio Gratton, Rainer Sandau
- 1st IAA North East Asia Symposium on Small Satellites – Serving the Needs for the Benefits of the Region
  - Date, Place: August – September, 2017, Ulaan-Baatar, Mongolia
  - proposed by M. Saandar, Rainer Sandau

## **6. Report from the IAA Permanent Committees**

No discussion was performed.

- IAA Permanent Committee on Small Satellites  
Chair: R. Hornstein, Co-Chair: Laufer Rene, R. Sandau  
Secretary: D'Errico M,

## **7. IAA Heads of Space Agencies Summit**

Name of person reporting

No discussion was performed.

## **8. Adjourn**

Appendix-1 Participants – Commission 4 meeting, Guadalajara, Mexico 2016 September

No	Name	Role	Presented	Remarks
1	Ovchinnikov, Mikhail (Russia)	Chair		Notified before Commission meeting
2	Tsuchida, Akira (Japan)	Vice Chair	X	
3	Balint, Tibor (Hungary)	Secretary	X	
4	Teofilatto, paolo (Italy)	Past Chair		
5	Kashanov, Olexandr (Ukraine)	Member	X	
6	Nakasuka, Shinichi (Japan)	Member		
7	Puig-Suari, Jordi (USA)	Member		
8	Gasbarri, Paolo (Italy)	Member	X	
9	Karas John* (USA)	Member		Non <b>bold</b> member of Commission 4
10	Bello-Mora Miguel (Spain)	Member	X	
11	Esper/D'errico/Herrel/Mendham	SG4-8 Chair		
12	Menshikov/Murthi	SG4-9 Chair		
13	Gu Xingfa/Zhou Xiang	SG4-11 Chair		
14	Alkalai/Graziani/Bousquet/Laufer	SG4-16 Chair		Notified before Commission meeting
15	Cappelletti/Graziani/Massimiani	SG4-17 Chair		
16	Cho/Graziani/Polansky	SG4-18 Chair		Final Draft in Commission 4 review
17	Horikawa/Coradini	SG4-19 Chair		Informed Status 2016/09
18	Bao Weimin/Contant	SG4-20 Chair		Informed Status 2016/09
19	Belokonov/Schilling	SG4-21 Chair	X	
20	Laufer, Rene		X	
21	Palmerini, Giovanni		X	
22	Holm, Jeanne		X	
23	Filippo Graziani		X	
24	Finkleman, Dave		X	