

International Academy of Astronautics (IAA)  
Minutes of meeting - Study Group 3.24 "Road to Space Elevator Era"  
2<sup>nd</sup> meeting in Paris, France on March 23<sup>rd</sup>, 2015

Date: Monday, March 23<sup>rd</sup>, 2015

Time: 11:00 – 12:30

Place: International Academy of Astronautics Paris Office, 6, rue Galilee 75116 Paris FRANCE

(Specific Room number will be shown when you are there.)

Chair: Akira Tsuchida (CM2), Co-chair: Peter Swan, Ph.D. (M4), David Raitt, Ph.D. (M4)

Secretary: Ms. Sakurako Takahashi

Agenda:

1. Opening Remarks Akira Tsuchida
  - Apology that the chair could not attend the first meeting in Toronto
2. Self-introduction All
3. Study Group overall schedule Overview Akira Tsuchida
  - The draft of final report by our study group must be ready for the commission review by Adelaide (2017/9).
  - Drafts of Space Elevator Mission Definition Document (SEMDD) and System Requirement Document (SESRD) will be out within the next 6 month. Study group members should provide their inputs to update these documents.
  - Status of subgroup 5: Started drafting SEMDD and SESRD based on a standard of system requirements. By creating these documents, people can find out critical technologies and TRL.
  - Status of subgroup 4: Working on an outreach activity in Taiwan. National Museum of Natural Science in Taiwan is planning to have an event to introduce future technology in 2017 and the Director General of the museum wants to include Space Elevator in the event. It would be good if we can find someone from Taiwan to join our study group.
  - Comment from the audience that we are also missing a member from India.
4. System Specification for Space Elevator IAA Proto type for advanced study purpose draft Sakurako Takahashi
  - Chair, secretary, and Dr. Ishikawa are working on drafts of SEMDD and SESRD referring to the ones of ISS.
  - By listing system requirements, we can identify many TBDs. These TBD parts can be targets of future research for universities and researchers. We can approach to the completion of the documents by minimizing the number of TBDs.
  - To create drafts of SEMDD and SESRD is an intermediate goal of the study group. We will continue updating toward the end of our study group.

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5. Space Elevator prototype on orbit verification research Status Akira Tsuchida
  - Tether deployment experiment using 2U CubeSat will be performed in 2016. The CubeSat will be deployed from the ISS and will extend 300m tether.
  - CNT material exposure experiment will be started in 2015. One sample will be exposed for one year and the other for two years and the results will be compared afterward. Ground testing will also be done to compare the results of the ones from orbit.
  
6. International Space Elevator Consortium update Peter Swan
  - ISEC will have its yearly conference on Aug. 21-23, 2015, in Seattle. ISEC has invited the study group to have a meeting on the day before (Aug. 20). We can have a half-day workshop and discuss SEMDD and SESRD to call for inputs from ISEC members.
  
7. Next meeting schedule, wrap up Akira Tsuchida
  - Chairman recommended 3rd meeting of this study group should be scheduled on Aug.20 in USA based on Dr. Peter Swan's invitation. Main topic should be reviewing drafts of Space Elevator Mission Definition Document (SEMDD) and System Requirement Document (SESRD).
  - One action was given to Dr. Peter Swan to notify when Call for paper is available for Space Elevator Conference 2015 (SEC2015, in USA) so that SEMDD and SESRD can be discussed also in SEC2015.