

International Academy of Astronautics (IAA)  
Minutes of meeting - Study Group 3.24 "Road to Space Elevator Era"  
6th meeting in Seattle, USA on August 19<sup>th</sup>, 2016



Date: Friday, March 19<sup>th</sup>, 2016

Time: 12:15 – 13:00

Place: The Barnstormer Lounge at the Museum of Flight, Seattle, USA

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

Secretary: Ms. Sakurako Takahashi

Participants: Peter Swan, Sunao Kai, Robert Penny, Bryan Laubscher, John Knapman, Akira Tsuchida

Agenda and meeting memo:

1 Opening Remarks (Akira Tsuchida) N/A

2 Self-introduction (All) N/A

3 Report from Commission III meeting/SG3.24 Paris in March 2016 (Akira Tsuchida)

- Tsuchida provided Report and Meeting Memo in Paris, no questions.

4 Space Elevator Mission Definition Document (SEMDD) (Akira Tsuchida)

- Tsuchida stated no update from March, Swan was assigned to review and update for next review in Guadalajara.

5 Space Elevator Mission Definition/System Requirement/Critical Technology/Verification chart (Akira Tsuchida)

- Tsuchida stated we should focus Critical Technology first rather than spend our resource to develop and complete the System Requirement document. Penny was assigned to develop Critical Technology and (Verification/) Recommended research topics. Tsuchida got an action to provide the latest "Space Elevator Mission Definition/System Requirement/Critical Technology/Verification chart" to Penny.

- Laubscher pointed out about Stratospheric Platform, and wondering if there is additional value to receive from this "verification" for actual space elevator. Tsuchida stated it is still some values to get experience from Climber operation.

- Tsuchida's note: During ISEC Space Elevator meeting in 2016 in Seattle, Fitzgerald stated it is important to recognize which technical capability should be mature to support which function of space elevator. (he said it is "Sequence") Based on this discussion, it should be a good idea to add "sequence" on Critical Technology/Recommended research items explanation. Tsuchida will contact Fitzgerald after SE2016 meeting.

Contact Information:

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## 6 Space Elevator Life Cycle Cost Estimation

(Referencing recent discussion in Japan regarding to construct MAGREV Train System between Tokyo and Osaka) (Akira Tsuchida)

- Tsuchida explained "Superconducting MAGLEV development in Japan" plan mainly focused development schedule (started on 2014, partial commercial service starts on 2027, then full scale service (between Tokyo and Osaka) will be started on 2045).
- Knapman mentioned that for Space Elevator, it is difficult to start "partial service". Tsuchida replied Tsuchida's point is different, JR Central corp does not use any government fund but using only their profit which gains from current bullet train service between Tokyo and Osaka. And it inspires us to invest huge money to construct more than 20 years to start getting profit

## 7 Space Elevator Prediction Feasibility Index (SEPI), Draft created ISEC's Research Team (Peter Swan) N/A

## 8 SEMDD and SESRD first review result (Akira Tsuchida) **Not Discussed**

## 9 Next meeting schedule in Guadalajara Akira Tsuchida **Not Discussed**

## 10 Report to IAA Commission III in Guadalajara Akira Tsuchida **Not Discussed**

Adjourn 1300

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