

Proposal for Forming an IAA Study Group SG 3.28

Title of Study:

Strategy of Low Cost and Large Scale Access to Space in Future

Proposer(s): LU Yu

Primary IAA Commission Preference: COMMISSION 3 Space Technology & Systems Development

Secondary IAA Commission Interests:

Members of Study Team

Chair(s): LU Yu, Co-Chair, G.Reibaldi

Secretary: WANG Xiaowei (TBD)

Other Members:

R.Yury (Russia), Gigou Jacques(ESA), D.KEN(USA), S.Ramakrishnan(India), Akira Tsuchida (Japan) , P.Swan(USA), SHEN Lin, GAO Zhaohui, WU Shengbao, WANG Xiaowei, TONG Kewei, ZHUANG Fangfang, DAI Kun, CAO Qun,

Open to members and non- members of the Academy

Short Description of Scope of Study

With the development of human society and economy, and aerospace technology and industry, the requirement access to space becomes large and larger. Especially, micro and small satellites begin blowout in these years. How to meet this kind requirement of large scale access to space and how to launch thousands payloads with low cost are a tough problem we are facing. This study will focus this problem. And the corresponding technologies and methodology will be studied.

Overall Goal:

Identify the requirement of access to space and exploration payload in future, and required key technologies and methodology to meet this kind of requirement.

Intermediate Goals:

Identify the quantitative requirement of access to space and exploration payload in future, and new technology and management methods to decrease the launch cost, .

Methodology:

1. The low cost design method of launch vehicles

2. Reusable technology
3. Launch Strategy for thousands of micro payloads
4. Private Vs. Governmental Management

Time Line:

Draft outline of report: Sep. 2017

Review outline of report and make assignments: Mar. 2018

First draft of report: Dec. 2019

Final report: Mar. 2020

Final Product (Report, Publication, etc.):

Publishable report to be distributed to the space international community

Target Community:

International space community, universities, small businesses in the aerospace and education communities.

Support Needed:

Communication of meeting opportunities at conferences

Potential Sponsors:

CASA, ESA, NASA, ROSCOSMOS, JAXA, ISRO

*To be returned to the IAA Secretary General Paris by fax: 33 1 47 23 82 16 or
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Date:

(No Signature required if document authenticated).