

## **IAA Study Group Status Report**

### **Responsible Commission:**

Commission 3 “Space Technology & System Development”.

### **Study Number and Title:**

3.14 “Public/Private Human Access to Space”

### **Short Study Description** (repeat from Study Group Proposal):

In 2012, the International Academy of Astronautics (IAA) established a study group to report on the probability of the emergence of a human orbital space market world-wide. The formal name of this activity is the “Public/Private Human Access to Space” IAA Study Group but is informally referred to in this report as the Human Orbital Market (HOM) study or working group.

Over the entire history of government-led, civilian and military space programs as they have been conducted to date, no human orbital space industry has yet been created or evolved naturally that is viable and self-sustaining independent of government customers. Not yet, but emerging. Repetition of past practices will not increase the possibility of a viable human orbital market in space, so we need a disruptive approach to succeed.

The goal of this report is to qualitatively assess the probability of the emergence of human orbital markets (HOM) world-wide. The report will define the theory and methodologies of five analysis phases and then give the results of these analyses for multiple countries and regions around the world. The five analysis phases include:

1. Identify the specific human orbital space markets being targeted.
2. Conduct a literature review of relevant reports and articles.
3. Identify relevant political, legal, capital, historical and cultural factors and structures.
4. Identify the set of industries that comprise, support or are related to the identified human orbital space markets, using a standardized methodology.
5. Qualitatively evaluate the likelihood that these industry clusters are sufficient for the eventual natural evolution of human orbital space markets.

The study “Public/Private Human Access to Space” is conducted by Simonetta Di Pippo and Ken Davidian as co-chairs, under the sponsorship of the International Academy of Astronautics (IAA) Commission 3 “Space Technology & System Development”.

### **Progress in past six months:**

- Definition of Phase 3 analysis methodology to identify relevant historical and socio-cultural factors that can influence a nation or region’s entrepreneurial assessment.
- Completion of all five analysis phases for the United States.

- Assessment of potential contribution of past studies to identify what analyses remain to be performed for other countries and regions to be included in the final report.

**Website Study Information up to date?** (Study Group Membership, Study Plan and Schedule):

Yes.

**Issues requiring resolution?** (recommend approach):

The Phase 4 of this report is substantial and requires the allocation of resources on the order of 20-50 thousand USD to be performed at a sufficient level of detail and quality. A request for national space agencies to contribute this analysis toward the final report have been requested but the likelihood of these studies being performed are not considered to be high at this point in time.

**Product Deliveries on Schedule?** (If modified explain rationale):

The final report will be delivered at the 2015 IAC. The report will contain complete analyses for multiple countries and regions but the level of quality and depth of the individual analyses will be uneven.

**Study Team Member Changes?**

There have been no team member changes in the past six months.

**Name of person providing Study Group Status** (Study Group Chair or Co-Chair):

Ken Davidian

**Status Report Date:**

2014-09-08