

Proposal for Forming an IAA Study Group SG 3.16

Title of Study:

Global Human Mars System Missions Exploration – Goals, Requirements and Technologies

Proposer(s):

G.Reibaldi/C.Bonnal

Primary IAA Commission Preference:

Commission III

Secondary IAA Commission Interests:

All other Commissions

Members of Study Team

Chair(s): Giancarlo Genta + TBD Co-Chair

Secretary: TBD

Other Members:

Maria Antonietta Perino, Christian Sallaberger, John Logsdon, B.Foing, C.Bonnal, R. Heidman, J.M.Salotti, etc.

+ TBDs

Short Description of Scope of Study

Human Missions to Mars have been studied individually by several Space Agencies over the past decades. However, a cooperative Human Mars mission framework – including, but not limited to requirements and technologies, is missing.

ISECG is not dealing with the above subject since it is limiting the coordination of the activities to the Mars Sample Return Mission

Overall Goal:

Identify, assess and synthesize a global set of goals with its related criteria requirements for future human exploration of the Mars system and establish technology opportunities and roadmaps in the context of promising cooperative exploration scenarios. The Study should aim to identify means to minimize the risks at global level

Intermediate Goals:

The study will consider, but not limited to, the following aspects:

- 1) Mission rationale definition goals with its related criteria: – Political, Scientific, Economical, Cultural
- 2) Questions to be answered with the relevant time lining
- 3) Global set of requirements
- 4) Enabling Technologies required with the required time lining
- 5) Human Factors aspects
- 6) Mission Architecture Options
- 7) Sustainability
- 8) Outreach aspects
- 9) Cooperative Framework
- 10) Decision Roadmap
- 11) Recommendations
- 12) Conclusions

Methodology:

E-mail, teleconferences, face-to-face meetings on the occasion of IAA Spring meetings and IAC Congress. A dedicated session at IAC congress as of 2013 will be dedicated to the Study Group. Specific workshop will be organized 1 year before finalizing the report.

Time Line:

2-3 years, Completion by 2014/15.

Preliminary Draft available by October 2013

Final Product (Report, Publication, etc.):

Report

Target Community:

Head of Space Agencies, UN, High Level Space Policy Forum, G-20

Support Needed:

National Space Agencies, Private Companies

Potential Sponsors:

European Union, UN, Private Companies, National Space Agencies

To be returned to the IAA Secretary General Paris

by fax: 33 1 47 23 82 16 or

by email: sgeneral@iaamail.org

Date:

(No Signature required if document authenticated).

Follow-up Section for IAA use only

Initial Phase

Application received:

Commission Approved:

SAC Approved:

Web Site Section opened:

Members Formally Appointed by IAA:

Final Phase

Peer Review by Commission Completed:

Recommended by the Commission:

Final Report Received:

SAC Approved:

BOT Accepted:

Publisher Selected:

Study Published: