

HUMAN EXPLORATION OF THE SOLAR SYSTEM SYMPOSIUM (A5)
Human Mars Exploration (2)

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IAA STUDY GROUP ON GLOBAL HUMAN MARS SYSTEM MISSIONS EXPLORATION

Abstract

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 still missing. The International Academy of Astronautics has set up a study group to deal with this subject with the goal of identifying, assessing and synthesizing a global set of goals with its related criteria and requirements for future human exploration of the Mars system and establishing technology opportunities and roadmaps in the context of promising cooperative exploration scenarios. The study will consider, but not limit 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 frame
3. Global set of requirements
4. Enabling Technologies required with the required time frame
5. Human Factors aspects
6. Mission Architecture Options
7. Sustainability
8. Outreach aspects
9. Cooperative Framework
10. Decision Roadmap
11. Recommendations
12. Conclusions

The study should aim to identify means to minimize the risks at global level, while ensuring the affordability and feasibility of human Mars exploration. The work of the study group is in its initial phase. The study team has been selected and the preliminary activities have been started. A draft is scheduled to be available for the next Heads of Space Agencies Summit to be held in Washington in December 2014.