

S3.6 Study on Strategies and Concepts for Future Exploration and Commercial Development of the Solar System – the ISS and Beyond”

The study aims at preparing a cosmic study on strategies and concepts for future exploration and commercial development of the solar system – the ISS and beyond. The goal is to facilitate the emergence of an international consensus concerning future exploration and commercial development of space (beyond the International Space Station) that will permit increasingly ambitious discoveries through-out the Solar System by human and robotics exploration, and promote profitable commercial development of space during the next 3-5 decades.

Intermediate goals are to establish a working community of future planners and innovators focused on the challenge of future exploration and commercial development of space, to identify and document a range of options for strategies and concepts, including (at high level) potential research and technology needs and opportunities, to identify and document the potential benefits of such approaches, to communicate effectively with the international aerospace community, decision-makers as well as the general public regarding the results of these efforts.

Timeline: cosmic study report available by October 2003

Heads of the Study group: John C. Mankins and Ernesto Vallerani.

Potential participants should express their interest by contacting the Academy at sgeneral@iaa.net (also see IAA web site at IAA Commissions).

new organization schemes...), the risk of loss of critical information increases. As a result, negative consequences on the technical risk and on the " know how " of the companies are also increasing. The same problem will be studied also for the future long space missions.

Timeline: cosmic study report available by October 2003

Head of the Study Group: JP Moura

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S 4.2 Study on Quality of Space Programs

The objective is to prepare a cosmic study on the quality of space programs. The overall goal is to improve the quality, reliability, efficiency, and safety of space programs, taking into account the overall environment in which they operate: financial constraints, harsh environments, space weather, long lifetimes, no maintenance, autonomy, international cooperation, norms and standard procedures, and certification.

Timeline: first cosmic study report available by October 2003 and final product by October 2005

Heads of the Study Group: Macgregor S. Reid, and Manola Romero

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S 5.1 Study on Space Debris Mitigation Rules for Launchers and Satellites

In the continuity of the two position papers already published by the Academy, the study aims at preparing, with two different sub groups - one for launch vehicles and one for satellites - the practical rules that should be used by manufacturers and the user community (owners of space systems, industry, operators, insurance companies, and lawyers). Close relationships will be established with the study group on space debris mitigation, IADC, the UN, and the various space agencies, which have already established space debris handbooks, so that efficiency and immediate results are obtained.

S 4.1 Study on Knowledge Management of Space Systems

The study aims at preparing a position paper on knowledge management of space systems. Space activities, as the other fields of industry, are facing a new challenge in term of knowledge management. Indeed, with the evolution of the society (such as the fast turn over of people) as well as the evolution of the industrial work (explosion of the information volume, new information tools,