

## IAA Study Group Status Report 2.5

**Responsible Commission:** 2

**Study Number and Title:** Astrobiological Studies of Solar Systems

**Short Study Description:**

Overall Goal: To write a position paper addressing the key issues related to an exobiology/astrobiology strategy for the exploration of this solar system and extra-solar planetary systems. Embodied will be new concepts developed by the Study Team based on existing roadmaps for astrobiological study, explicit reference to international capabilities and interests, and a timeline for accomplishment of astrobiology objectives implicit in the strategy. In addition, the question of an application of human capabilities to this strategy will be included by reference to the IAA cosmic study undertaken by Commission 1, "Next Steps in Exploring Deep Space."

Intermediate Goals: Identify the issues; review the literature; provide presentations at scientific meetings (e.g., Vancouver, Fukuoka); hold study group meetings electronically and at these conferences; draft the position paper and publish it.

Methodology: Review and coalescence of existing strategies; presentations at IAA and other scientific meetings; study group meetings at scientific conferences; e-mail communications.

**Progress in past six months:**

The Mars Astrobiology Science and Technology Workshop was held 8-10 September 2004 at the Carnegie Institution of Washington, focusing on astrobiological field studies to continue scientific progress after the discovery of evidence for past liquid water on Mars, along with the resulting potential for ancient current life there. The workshop concerned the next generation of Mars in situ astrobiology science and technology experiments, aimed toward determining martian history, understanding martian habitability, and detecting signatures of past or present life.

In addition, a joint ESA/NASA workshop on planetary protection and the human exploration of Mars was planned for May 2005. A further meeting will be held among the chairs and available principals at the NAI meeting in Boulder, Colorado, in April 2005.

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

**Issues requiring resolution? :**

Revise study group description to focus on astrobiological field studies with or without humans, and including planetary protection considerations.

**Product Deliveries on Schedule?:**

The timeline is potentially to be extended, pending issues in progress with NASA and ESA planning for Moon/Mars exploration, and for outer planet exploration.

**Study Team Member Changes?**

None

**Name of person providing Study Group Status :**

John D. Rummel

**Status Report Date:** 22 March 2005