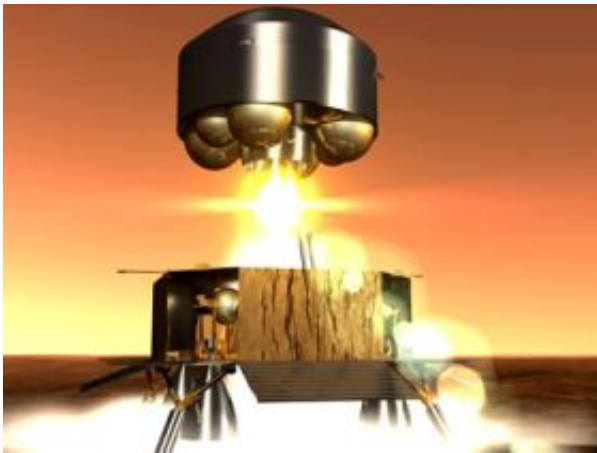


International group plans strategy for Mars sample return mission

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Artist's view of the Mars Sample Return (MSR) ascent module lifting off from Mars' surface with the Martian soil samples. Credits: ESA

ESA, NASA and an international team are developing plans and seeking recommendations to launch the first Mars mission to bring soil samples back to Earth. The ability to study soil from Mars here on Earth will contribute significantly to answering questions about the possibility of life on the Red Planet.

Returned samples also will increase understanding of the useful or harmful properties of Martian soil, which will support planning for the eventual human exploration of Mars.

A task force named the International Mars Architecture for Return of Samples, or IMARS, recently met in Washington to lay the foundation for an international collaboration to return samples from Mars. NASA hosted the meeting. IMARS meeting participants included representatives from more than half a dozen countries and ESA, NASA, the Canadian Space Agency (CSA) and the Japan Aerospace Exploration Agency (JAXA).

IMARS is a committee of the International Mars Exploration Working Group, or IMEWG. The group was formed in 1993 to provide a forum for the international coordination of Mars exploration missions.

"The potential paradigm-changing science from Mars samples makes this mission a high priority of the National Academy of Sciences," said Doug McCuiston, NASA's Mars Exploration program director, Science Mission Directorate, Washington.

"The exciting progress being made by the IMARS team is contributing directly to making this mission a reality in the next decade. All spacefaring nations have a standing invitation from IMEWG to participate in IMARS."

Scientists reviewed past engineering work on a Mars sample return mission, international science priorities, and sample receiving facility requirements. The IMARS team made significant progress in many of the key issues associated with the integration of science and engineering challenges. The team established a common strategy for launching a Mars sample return mission and achieving scientific objectives that can be met only by returning Martian soil to Earth.

"For Europe this is a major step to shape the future of the ESA Aurora Exploration Programme in 2008," said Bruno Gardini, ESA's Exploration Programme Manager. The Aurora Exploration Programme

is part of Europe's strategy for space, initiated by ESA in 2001 to create and implement a long-term European plan for robotic and human exploration of the Solar System.

The next steps in preparing for a Mars sample return mission includes more detailed international trade studies on engineering and mission specifics, greater detail on science and sample requirements, and definition and requirements for Earth-based facilities. IMARS will address the technical issues in upcoming meetings, along with preliminary discussions of the possible roles of interested nations and agencies.

Source: ESA

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