

**Dated: 05/08/01**

## **EXHIBIT II**

### **MAV Technology Objectives**

#### **Science Baseline**

The Mars Exploration Program (MEP) encompasses all NASA Mars robotic mission activities and analyses undertaken to characterize the solid planet and its atmosphere, its geological history, its climate and the relationship to Earth's climate change process; to determine what resources it provides for future exploration; and to search for evidence of extinct or extant life on Mars.

The Mars Exploration Program is a science-driven, technology-enabled effort to characterize and understand Mars. Chief among the questions to be addressed by the Program is: "Did life ever arise on Mars?"

Scientific and engineering measurements of the nature of Mars will be carried out using robotic assets at Mars. Experiments, which provide critical information for the eventual human exploration of Mars, will be incorporated through an integrated planning approach.

Science shall drive the Mars Exploration Program and the Sample Return Mission. Sample return shall enable greater understanding of Mars than is otherwise possible with remote sensing and in situ investigations. Analyses of returned samples shall address the program's goals in understanding whether life ever existed on Mars, the past and present climate, the interior and surface of the planet, and characterize the Martian environment, particularly as it influences future human exploration. Therefore, *the objective of the Mars Sample Return (MSR) mission is to return Martian samples that include rock, soil and atmosphere to Earth for scientific analyses.*

The Mars Exploration Program (MEP) desires an understanding of the trades (cost, risk, etc.) associated with Mars Ascent Vehicle technologies.