

Foreword

The Mars Pathfinder mission will place a small lander and rover on the surface to begin the in situ investigation of surface materials that make up the Red Planet. After a hiatus of over 20 years since the two Viking landings, Pathfinder will use the lander and rover to explore Ares Vallis in Chryse Planitia. During entry and descent, measurements of the atmosphere will provide a third profile with altitude and regular meteorology measurements during the mission will extend the monitoring of the atmosphere begun during Viking. Equipped with imagers and an instrument that measures the elemental composition of surface materials, the lander and rover will investigate a "grab bag" suite of ancient rocks that have been carried down the outflow channel to better understand how they formed, how they have weathered through exposure to the atmosphere, and the nature of the early environment of Mars.

This issue of the Journal of Geophysical Research-Planets contains papers that describe the mission and instruments (including the rover), the selection of the landing site, and a variety of contributed papers that describe the landing site, its regional context or the kind of science that Pathfinder will perform on Mars. Interest for many of the contributed papers grew out of two workshops open to the planetary science community on the selection of the Pathfinder landing site that were held in 1994 and 1995.

Matthew Golombek

Mars Pathfinder Project Scientist