

Tuesday, March 18, 2003
POSTER SESSION I
7:00 p.m. Fitness Center

MER 2003 Landing Sites: Hazards of Geology

Schroeder R. D. Golombek M. P.

Mars Exploration Rover Landing Site Boulder Fields [#1975]

Mars Orbiter Camera images of potential Mars Exploration Rover (MER) landing sites were used to measure boulder fields, and thus help to better quantify potentially hazardous rocks.

DiMaggio E. N. Schroeder R. D. Golombek M. P. Haldemann A. Castle N.

Characterization of Martian Rock Shape for MER Airbag Drop Tests [#1589]

To aid in defining the rock distributions for MER airbag tests, images from the Viking Landers 1 and 2 and MPF were used to identify rocks that are >20 cm high and characterize them by their shape and burial.

Golombek M. P. Matijevic J. R. DiMaggio E. N. Schroeder R. D.

Rock Size-Frequency Distributions at the Mars Exploration Rover Landing Sites:

Impact Hazard and Accessibility [#1778]

Model rock size-frequency distributions indicate a low probability of impacting hazardous rocks at the four potential MER landing sites. Rocks large enough to analyze and abrade should be plentiful within an easy Sol's drive at all of the sites.

Ivanov A. B.

Ten-meter Scale Topography and Roughness of Mars Exploration Rovers Landing Sites and Martian Polar Regions [#2084]

We will describe our latest results in processing MOC stereo pairs and reconstruction of ten-meter scale topography in MER landing sites and polar regions.

Kirk R. L. Howington-Kraus E. Redding B. Galuszka D. Hare T. Archinal B. A.

High-Resolution Topomapping of Candidate MER Landing Sites with MOC: New Results and Error Analyses [#1966]

Digital elevation models (DEMs) and slope statistics of the four candidate MER landing sites at 10 m (stereo) and 3 m (photoclinometry) indicate all sites are smooth and likely safe. Final safety assessment will be based on simulations using our DEMs.

Koepfen W. C. Seelos F. P. IV Arvidson R. E. Christensen P. R.

Terrain Distributions in Meridiani Planum and Probability of Sampling by the Mars Exploration Rover [#1853]

Terrain distributions are mapped in Meridiani Planum using THEMIS nighttime IR and MOC NA data. Probability of landing in particular terrains as well as sampling multiple geologic units is discussed.

Okubo C. H. Schultz R. A. Tanaka K. L.

Fault-controlled Fluid Seep Potential and Surface Strength at the Isidis & Elysium Planitia MER Sites Based on Numerical Modeling of Wrinkle Ridge Topography [#1484]

We evaluate surface properties and map locations of potential fracture-controlled fluid seeps at the Isidis and Elysium MER sites based on numerical modeling of MOLA-derived wrinkle ridge topography.