MER Landing Site

Seelos F. P. IV   Arvidson R. E.  
*Origin and Evolution of Layered Deposits in Meridiani Planum [#3101]*

The origin and evolution of layered deposits in the Meridiani Planum region are investigated using multiple remote sensing data sets.

Lane M. D.    Christensen P. R.    Hartmann W. K.    THEMIS Science Team  
*A Study of Meridiani Planum, Mars, Using THEMIS Data [#3122]*

This study utilizes both THEMIS single-band (for determining crater density) and multiple-band (for determining composition) data to investigate the Meridiani Planum MER landing site.

Allen C. C.    Westall F.    Longazo T. G.    Schelble R. T.    Probst L. W.    Flood B. E.  
*Meridiani Planum Hematite Deposit: Potential for Preservation of Microfossils [#3133]*

The martian hematite site may be significant in the search for evidence of extraterrestrial life. Since hematite can form as an aqueous precipitate, the potential exists for preserving microfossils in ecosystems that deposit iron oxides.

*Analysis of Atmospheric Mesoscale Models for Entry, Descent and Landing [#3251]*

Each MER lander is sensitive to the martian winds encountered near the surface during the EDL process. Several statistical tools were used to analyze the winds from mesoscale models and assess the safety of landing sites. Such techniques can also indicate scientifically interesting features.

Martin T. Z.    Bridges N. T.    Murphy J. R.  
*Modeling Near-Surface Temperatures at Martian Landing Sites [#3162]*

We have developed a process for deriving near-surface (~1 m) temperatures for potential landing sites, based on observational parameters from MGS TES, Odyssey THEMIS, and a boundary layer model developed by J. R. Murphy for fitting Pathfinder meteorological measurements.

*Gusev and Meridiani Will Look Different: Radar Scattering Properties of the Mars Exploration Rover Landing Sites [#3272]*

Analysis of all existing radar data for the two Mars Exploration Rover (MER) landing sites at Meridiani Planum and Gusev Crater suggest that their meter-scale morphological appearance will be noticeably different than previous Mars landing sites.