

Second Announcement

First Landing Site Workshop
For Future Mars Missions
Call for Presentations
Dear Colleagues:

A Landing Site Workshop for future possible Mars rover missions presently under planning within the NASA-ESA collaboration will be held February 29 to March 2, 2012, at the Hilton Washington Dulles Airport hotel* in Herndon, VA, and will be preceded by the second international meeting of MEPAG (see announcement for complete hotel information). The workshop will begin the identification and discussion of future possible landing sites for a rover mission to conduct in-situ science investigations including drilling and caching samples for possible return to Earth and subsequent analysis, within the constraints imposed by engineering requirements, planetary protection requirements, and the necessity of ensuring a safe landing. The goal is to gather information on candidate landing sites and develop a list of high priority candidates for future joint missions in a timely manner utilizing various orbiter instruments while they are still operating.

Scientific Objectives:

The preliminary scientific objectives for the possible 2018 joint rover are being defined (subject to change). It is expected that the rover would land at a geologically diverse site interpreted to have strong potential for past habitability and for preserving the physical and chemical signs of life and organic matter. The rover would: 1) analyze the local geology and define the local stratigraphy at km to sub-mm scales and down to ~2 m depth; 2) evaluate the nature of past habitable environments at the landing site, and search for evidence of abiotic, or pre-biotic carbon chemistry; 3) investigate favorable geological materials for preserving biosignatures at the site and analyze them for physical or chemical signs of life; and 4) select, document, collect, and cache samples that could be returned to Earth for definitive analysis. Cashed samples would be selected to address the following broad science goals in order of priority: a) critically assess evidence for life, pre-biotic chemistry, or abiotic organic matter in samples and determine their preservation potential; b) determine the magmatic, magnetic and atmospheric history in samples to constrain the mechanisms and ages for the accretion, early differentiation and thermal evolution of Mars; c) reconstruct the history of surface and near surface processes and climate change using detailed geochemical and mineralogical analyses; and d) assess potential hazards and resources for future human explorers. The latest information related to anticipated mission science and engineering constraints can be found at: <http://marsnext.jpl.nasa.gov/>.

Call for Papers:

Presentations at the workshop are expected to emphasize discussion of candidate landing sites relative to satisfying mission science objectives and engineering constraints. We especially welcome sites characterized by diverse units and addressing probable mission science goals (a to d above) in concert with presentation of the rover traverse required for access to the units (e.g., >10 km). Presentations related to evaluation of the physical characteristics of the surface as potentially related to landing site properties are also welcomed. Persons wishing to make a presentation at the workshop should provide a title and brief (several sentence) description of the content to John Grant, Matt Golombek, and Nicolas Mangold by February 1st, 2012. There will not be a registration fee for the workshop. We anticipate mostly oral presentations, though there may also be poster sessions. Additional logistical information about the workshop along with the preliminary program will be distributed in a subsequent announcement.

All members of the scientific community are encouraged to participate in this important activity.

Regards,

John Grant, Matt Golombek, and Nicolas Mangold, Co-Chairs,
Mars Landing Site Steering Committee

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A block of rooms is reserved at the rate of \$139.00 per night plus tax on a first-come, first-serve basis.