Tuesday, March 13, 2007
POSTER SESSION I: MARS RECONNAISSANCE ORBITER:
GEOLOGY, LAYERS, AND LANDFORMS, OH, MY!
6:30 p.m.  Fitness Center

Keszthelyi L.  Okubo C.  Jaeger W. L.  McEwen A.  HiRISE Team
*Early HiRISE Observations of Tectonic Features [1988]*
Initial HiRISE views of things tectonic.

Keszthelyi L.  Jaeger W. L.  McEwen A.  Dundas C.  HiRISE Team
*Early HiRISE Imaging of Volcanic Terrains [1978]*
Initial HiRISE views of things volcanic.

Dundas C. M.  Okubo C.  McEwen A. S.  HiRISE Team
*Early HiRISE Observations of Fractured Mounds [2173]*
Early HiRISE images show a number of fractured mounds on the martian surface. The presence of fractures and scale of the features suggest pingos as one potential analogue.

Dundas C. M.  Keszthelyi L. P.  McEwen A. S.  HiRISE Team
*Initial HiRISE Observations of Cratered Cone Groups on Mars [2116]*
Early images from the HiRISE camera include several views of cratered cone groups on the martian surface. Cratered cones from Acidalia Planitia and Hephaestus Fossae show different fine-scale surface features, which provide constraints on the mode of origin.

Jaeger W. L.  Keszthelyi L. P.  McEwen A. S.  Dundas C. M.  Russell P. S.  HiRISE Team
*Early HiRISE Observations of Ring/Mound Landforms in Athabasca Valles, Mars [1955]*
Small ring/mound landforms (RMLs) pepper the floor of Athabasca Valles, which is a young flood-carved channel system on Mars. Early HiRISE observations of these RMLs show them to be hydrovolcanic constructs similar to terrestrial rootless cones.

*Glacial Morphologies in the Western Charitum Montes, Argyre Basin Rim [2164]*
Glacial morphologies have been identified in the HiRISE image AEB_1_150 of the western Charitum Montes. Features such as streamlined hills and long grooves indicate a predominant down-slope erosional process consistent with glacial flow and erosion.

Lefort A.  Russell P.  Thomas N.  HiRISE Team
*Scalped Terrains in Utopia Planitia, Insight from HiRISE [1796]*
Scalped pits are typical erosion features of the mid-latitude mantle of Mars, possibly related to ground ice sublimation or to thermokarstic processes. HiRISE images provide a new insight into the small-scale features of these landforms.

Martínez-Alonso S.  Mellon M. T.  McEwen A. S.  HiRISE Team
*On the Geology of the Aeolis Mensae Region, Mars [1366]*
Large surface composition diversity, positive water and Cl anomalies, and structural setting could be indicative of an igneous, hydrothermal, or evaporitic environment. The thermophysical, spectral, and morphological properties of the region are analyzed.

Wilson S. A.  Howard A. D.  Moore J. M.  Grant J. A.
*Fine-grained and Boulder-rich Layers in Terby Crater as Seen in HiRISE Images [2018]*
HiRISE images in Terby show numerous meter-scale boulders on the layered slopes that originate from boulder-rich layers at the top of the mesa and massive, fine-grained layers lower in the sequence that weather along multi-meter spaced joints.
HiRISE camera images show the light-toned layered deposits display a range of morphologies that likely reflect differences in their origin and post-emplacement modification.

Preliminary observations show outflow channels sourced from relays between fault segments. New high resolution data from HiRISE on MRO reveals high density bleached joint sets proximal to a fault relay zone in Melas Chasm.