Thursday, March 16, 2006
POSTER SESSION II: MARS IMPACT CRATERING
7:00 p.m. Fitness Center

Barlow N. G.
Status Report on the "Catalog of Large Martian Impact Craters", Version 2.0 **[#1337]**
The contents of the revised "Catalog of Large Martian Impact Craters" ("Catalog 2.0") are discussed and a status report of the revision is described.

Getzandanner K. M. Frey H. V.
Western Arabia Total Population Crater Retention Age: More Like Lowlands than Highlands **[#1968]**
The cratered terrain in Western Arabia has a total population crater retention age that is identical to that of the adjacent lowlands. In elevation and age it is more similar to the martian lowlands than to the rest of the global highlands.

Benignus C. Cassiani N. Dasgupta A. Nguyen D. Saribudak A. Saribudak E. Zychowski K.
Analysis of Rayed Craters on Mars **[#1486]**
We have examined the correlation between the diameter of rayed craters on Mars and the thermal inertia of the surrounding materials of the craters by using the THEMIS images of Gratteri, Zunil, Zumba, and Dilly.

Morgan G. A. Head J. W.
Relationship Between Impact Crater Deposits, Small Scale Channels and Lineated Valley Fill at the Dichotomy Boundary in the Northern Mid Latitudes **[#2008]**
The martian northern dichotomy boundary shows evidence of an integrated LVF system emerging from a single source area, and impact-induced melting of extensive snow/ice deposits under previous climatic regimes.

Matias A. Jurdy D. M.
Martian Mid-Latitude Craters with Unusual Rim Deposits: Evidence for Volatiles or Topographic Control? **[#1091]**
We examine three ejecta craters located within a 10-degree latitudinal band on the northern plains displaying an unusual deposit on their rims. The similarities of these features suggest an analogous formation processes for all of them, perhaps due to volatiles or topographic control.

Reiss D. Hauber E. Ivanov B. A. Michael G. Jaumann R. Neukum G. HRSC Co-Investigator Team
Rampart Craters in Thaumasia Planum, Mars **[#1754]**
We measured the onset diameter, ages, and depth-diameter ratios of rampart craters in Thaumasia Planum. The first results of this study suggest that the formation of rampart craters is connected to volatile rich periods in the Hesperian.

Kadish S. J. Barlow N. G.
Pedestal Crater Distribution and Implications for a New Model of Formation **[#1254]**
Pedestal craters in the martian northern hemisphere are small, occur at high latitudes, and impacted into volatile-rich material. These characteristics suggest formation in an ice-rich material which has subsequently undergone sublimation.

McConnell B. S. Newsom H. E. Wilt G. L. Gillespie A.
Circular Features Located on Lineated Terrain, Ismenius Lacus Region, Mars: Implications for Post-Impact Crater Modification Attributed to Sub-Surface Ice Deflation **[#1498]**
Modified impact craters on lineated terrains formed by impact into ice-bearing material followed by infill and subsequent sublimation of the ice, resulting in collapsed crater rims, single and multiple inner rings and central layered deposits.

Bacastow A. L. Sakimoto S. E. H.
Martian North Polar Crater Morphology: Implication for an Aquifer **[#2239]**
The largest martian north polar impact craters with pingo-like fill features imply the presence of a punctured aquifer.

Stewart S. T. Valiant G. J.
Martian Subsurface Properties and Crater Formation Processes Inferred from Fresh Impact Crater Geometries **[#2427]**
We infer the subsurface strength and parameters for crater and ejecta formation processes from resolved crater geometry measurements.

Lanagan P. D.
Paucity of <200-m-Diameter Craters in Vastitas Borealis, Mars, and Implications for Geomorphic Processes **[#2315]**
Martian northern plains. Show very few small craters. Creep may erase them.

Korteniemi J. Aittola M. Lahtela H. Öhman T. Raitala J.
Martian Floor-fractured Craters vs. Craters with Irregular Depressions **[#2145]**
On Mars craters with floor fractured and/or irregular depressions are linked to specific locations near the dichotomy boundary and giant impact basins. They provide information on the subsurface processes.

Lahtela H. Korteniemi J. Ori G. G. Pondrelli M. Di Lorenzo S. Neukum G. HRSC Co-Investigator Team
Enigmatic Features of a Crater in Arabia Terra, Mars **[#2114]**
This HRSC study discusses the characteristics of an enigmatic ~25 km crater, located at 36.0N°, 351.8E°, in Arabia Terra. It is either of volcanic or impact origin.

Peet V. M. Ramsey M. S. Crown D. A.
Terrestrial Volcanic and Impact Analogs to Small Martian Craters: Utilizing Remote Sensing and Field-Based Datasets to Analyze Formational and Sediment Transport Processes **[#2323]**
El Elegante Crater and Meteor Crater are studied to constrain formation and sediment transport processes. Block sizes and distributions, crater rim volumes, vegetation, and a broad range of remote sensing datasets are considered.

Mest S. C.
Characteristics of Impact Crater Interior Deposits in the Southern Highlands of Mars **[#2236]**
Impact craters (D>10 km) in the highlands of Noachis Terra display morphologies and features, and contain interior deposits that indicate a variety of geologic processes modified the craters subsequent to their formation.

Anderson R. B. Kiefer W. S. Frey H. V. Roark J. H.
Morphometry of Large Martian Impact Structures and Implications for Resurfacing Processes on Mars **[#2018]**
We compare the morphometry of pristine and partially filled large impact structures on Mars to constrain the amount of fill thickness in the filled craters. The resulting fill thickness map helps constrain resurfacing process on early Mars, including the importance of ballistically emplaced ejecta.

Cohen B. A.
Quantifying the Amount of Impact Ejecta at the MER Landing Sites and Potential Paleolakes in the Southern Martian Highlands **[#1043]**
Applying previous equations for impact ejecta thickness to Mars, tens of meters of ejecta are expected over the southern hemisphere. This is not enough to explain observed depth discrepancies in Gusev Crater or in other potential Martian paleolakes.