

Wednesday, October 28, 2015

EQUATORIAL III

2:00 p.m. Lecture Hall

- 2:00 p.m. Gupta S. Sefton-Nash E. * Adler J. Rice M. Fawdon P. Warner N. Grindrod P. Davis J. Balme M. Bell J. F. III Stetson C. Richard J.
[*The Hypanis Fluvial-Deltaic-Lacustrine System in Xanthe Terra: A Candidate Exploration Zone for the First Human Mission to Mars*](#) [#1051]
 The Hypanis Exploration zone indicates displays clear evidence for the long-lived action of water in the Early Hesperian with high potential for ancient habitability.
- 2:15 p.m. Mustard J. F. * Goudge T. A. Bramble M. S. Ehlmann B. L. Head J. W. Dickson J. L. Fassett C. I.
[*Jezero Crater Watershed, Isidis Basin, Sulfate Deposits and Syrtis Major: A Compelling Exploration Zone for Human Exploration*](#) [#1034]
 The science merit for the Jezero-Syrtis-Isidis EZ is tied to: diversity of rocks and minerals, regional geologic context, habitability (i.e. water history), and the biosignature preservation potential. Resources are tied to hydrated mineral deposits.
- 2:30 p.m. Markle L. M. *
[*Nili Fossae Resource and Science ROIs*](#) [#1010]
 The Nili Fossae region presents multiple resource and science ROIs for establishing a permanent colony on Mars. Water ice appears to cover a large are and multiple geological formations provide opportunity for science missions.
- 2:45 p.m. Sibille L. * Mueller R. P. Niles P. B. Glotch T. Archer P. D. Bell M. S.
[*Aram Chaos: A Long Lived Subsurface Aqueous Environment with Strong Water Resource Potential for Human Missions on Mars*](#) [#1048]
 Aram Chaos is a 280-km-wide near-circular structure near the outflow channel Ares Vallis and Aureum Chaos. It is a compelling landing site for human explorers featuring multiple science ROIs with a compelling resource ROI with polyhydrated sulfates.
- 3:00 p.m. INTEGRATING DISCUSSION
- 3:20 p.m. *Break*
- 3:35 p.m. Wright S. P. * Niles P. B. Bell M. S. Milbury C. Rice J. W. Jr. Burton A. S. Archer P. D. Jr. Rampe E. B. Piqueux S.
[*An Exploration Zone in Cerberus Containing Young and Old Terrains, Including Fossae/Faults and Shergottite Distal Ejecta*](#) [#1017]
 Cerberus contains Amazonian lava flows embaying a range of photogeologic units: ridged plains, heavily cratered terrain, highland knobs, and perhaps the Medusa Fossae Fm. Zunil Crater distal ejecta produced secondary crater fields (of shergottites?).
- 3:50 p.m. Boatwright B. D. *
[*Southern Nectaris Fossae: A Microcosm of Martian Geology*](#) [#1005]
 The proposed Exploration Zone is located at the southwestern terminus of Nectaris Fossae near Protva Valles. It is ideal in its close proximity to a number of fluvial, volcanic, and impact features as well as sites for potential resource utilization.

- 4:05 p.m. Skinner J. A. Jr. * Hare T. M. Fortezzo C. M. Rickman D. L.
[Considerations for Human Exploration of an Exhumed, Intercrater Basin in the Martian Cratered Highlands: The Hadriacus Palus and Cavi Example](#) [#1052]
Hadriacus Palus and Cavi represent an exhumed, structural (principally non-crater) basin that we contend is a highly relevant "type example" exploration zone wherein scientific objectives can be reasonably achieved and broadly extrapolated to Mars.
- 4:20 p.m. Horgan B. * Loizeau D. Poulet F. Bishop J. Noe Dobrea E. Z. Farrand W. Michalski J. Gross C. Kleinhenz J. Linne D.
[Habitable Noachian Environments and Abundant Resources in the Mawrth Vallis Exploration Zone](#) [#1009]
The Mawrth Vallis EZ contains the most extensive exposed outcrop of clay-rich rocks on Mars, offer substantial and accessible resources for water extraction, as well as Fe, Al, and Si feedstock, and have high biosignature preservation potential.
- 4:35 p.m. INTEGRATING DISCUSSION
- 4:55 p.m. DAILY WRAP UP