

Tuesday, March 19, 2013

[T645]

**POSTER SESSION: TOMORROW'S MISSIONS TODAY:
OPERATIONS TESTING AT TERRESTRIAL ANALOG SITES
6:00 p.m. Town Center Exhibit Area**

Skinner J. A. Jr. Koenders R. Hare T. M. *POSTER LOCATION #681*
[Assessing the Value of Analog "Mission" Data Sets Beyond the Testing Timeline](#) [#2791]

We promote a discussion focused on how analog mission datasets can be a resource for cross-discipline investigation after actual tests have been completed.

Deans M. C. Smith T. Lees D. S. Scharff E. B. Cohen T. E. *POSTER LOCATION #682*
[Real Time Science Decision Support Tools: Development and Field Testing](#) [#2847]

We tested our xGDS science tools in an analog lunar rover test, demonstrating that real time lunar surface science is possible with xGDS capabilities.

Hipkin V. Dubreuil-Laniel G. Gonthier Y. Haltigin T. Léveillé R. et al. *POSTER LOCATION #683*
[Canadian Space Agency Analogue Missions — Approach to Evaluation and Lessons Learned](#) [#2952]

Four analogue missions supported by the Canadian Space Agency in 2011 and 2012 are presented, with focus on the approach to evaluation and lessons learned.

Foing B. H. Stoker C. Rodrigues L. Svendsen Å. Rammos I. et al. *POSTER LOCATION #684*
[Astrobiology, Geology and Habitability Field Studies Supporting Mars Research](#) [#3057]

We conducted field campaigns (EuroGeoMars and ILEWG EuroMoonMars) in the Utah desert to study geology, habitability, and samples in support of Mars-X, MRO, MER, and MSL.

Johnson J. E. Janoiko B. A. Reagan M. L. *POSTER LOCATION #685*
[Reasearch and Technology Studies \(RATS\) 2012 Mission Overview](#) [#3097]

2012 marked the 15th year of Research and Technology Studies (RATS) testing and the first to evaluate near-Earth asteroid operations from Johnson Space Center.

Abercromby A. F. J. Chappell S. P. Litaker H. L. Gernhardt M. L. *POSTER LOCATION #686*
[NASA Research and Technology Studies \(RATS\) 2012: Evaluation of Human and Robotic Systems for Exploration of Near-Earth Asteroids](#) [#1671]

Operations concepts for human exploration of a near-Earth asteroid were tested using human subjects, prototype hardware, and a software simulation of Itokawa.

Evans C. A. Bell M. S. Calaway M. J. *POSTER LOCATION #687*
[GeoLab Results from Three Years of Analog Mission Tests](#) [#1357]

Summary of results from three years of analog tests of NASA's GeoLab workstation, including operational lessons, science benefits, and human-robotic interfaces.

Chappell S. P. Abercromby A. F. J. Reagan M. L. Gernhardt M. L. *POSTER LOCATION #688*
[NEEMO 16: Evaluation of Techniques and Equipment for Human Exploration of Near-Earth Asteroids](#) [#1724]

The NEEMO 16 mission was performed at the Aquarius undersea research habitat and focused on near-Earth asteroid (NEA) human exploration techniques and systems.

Graham L. D. Graff T. G. MMAMA (2012) Team *POSTER LOCATION #689*
[Rover-Based Instrumentation and Scientific Investigations During the 2012 Analog Field Test on Mauna Kea Volcano, Hawaii](#) [#2269]

We report the integration and operation of the rover-mounted instruments and scientific investigations conducted during the 2012 MMAMA analog field test.

Graff T. G. Morris R. V. Klingelhofer G. Blumers M. **POSTER LOCATION #690**
[Mössbauer/XRF MIMOS Instrumentation and Operation During the 2012 Analog Field Test on Mauna Kea Volcano, Hawaii](#) [#2974]

We report the results from the two MIMOS (II and IIA) instruments deployed as part of the 2012 MMAMA analog field test.

Coutrot G. L. Arvidson R. E. Zhou F. **POSTER LOCATION #691**
[Mars Exploration Rover Opportunity Mobility Simulation of Traverses on Matijevic Hill, Cape York, Mars](#) [#1142]

We studied how the Mars Rover Opportunity responded on tilted surfaces to understand soil properties and plan more difficult drives on steeper slopes.

Zhou F. Arvidson R. E. Bennett K. Iagnemma K. Senatore C. et al. **POSTER LOCATION #692**
[Simulating Mars Exploration Rover Opportunity Drives Using Artemis](#) [#1540]

Summarizing simulations of Opportunity's drives using Artemis, including the ripple crossing on sol 2143, and driving on a tilted bedrock surface on sol 2808.

Gallegos Z. E. Newsom H. E. Ollila A. M. Berger J. Lanza N. L. et al. **POSTER LOCATION #693**
[Summary of the Mars Science Laboratory Rover Simulation at the Haughton Impact Structure](#) [#2557]

Mars Science Lab rover simulation study. Objectives: test MSL mission scientists, understand the local geology, and evaluate simulations in planetary exploration.

Badders B. D. **POSTER LOCATION #694**
[NDX-2 Lunar Space Suit PLSS Development for Analog Operations](#) [#2856]

The Human Spaceflight Laboratory at the University of North Dakota is developing a Portable Life Support System for analog testing of the NDX-2 Lunar Spacesuit.

Ono A. Schlacht I. L. Hendrikse J. Battler M. **POSTER LOCATION #695**
[Habitability in Mars Mission Simulation: Sounds as Stress Countermeasures](#) [#1807]

I present the habitability research performed at the Mars Desert Research Station to increase crew performance, safety, and well-being, in human Mars missions.

Willson D. Stocker C. R. **POSTER LOCATION #696**
[Space Suit Impact on Efficiency and Performance of Field Science Tasks](#) [#3088]

We conducted pressurized space suit field trials to quantify scientist astronaut performance doing off-world field science.