

Tuesday, March 13, 2007
POSTER SESSION I: PLANETARY ANALOGS: OPERATIONS
6:30 p.m. Fitness Center

Hipkin V. Osinski G. R. Berinstain A. Léveillé R.

The Canadian Analogue Research Network (CARN): Opportunities for Terrestrial Analogue Studies in Canada and Abroad [#2052]

We will present an overview of the Canadian Analogue Research Network (CARN), including a description of the various analogue sites in CARN, potential new sites, and a discussion regarding how CARN is applicable to the global exploration strategy.

Braham S. P. Pires M. P.

The Canadian Analogue Research Network Exploration Systems Operations Center and Advanced Lunar/Mars Analogue Mission Systems [#1875]

SFU has over a decade in experience in understanding the requirements for critical mission operations, including analogue missions in support of NASA and other space agencies, leading to the formation of the Exploration Systems Operations Center.

Seastrand A. Pelster N. Everingham M. Wells R.

California Space Enterprise Analog Facilities for Exploration Hardware Validation Tests Validation and Training [#2425]

With diverse geography, a variety of aerospace resources (three NASA Centers, military test ranges, and 19% of the nation's aerospace industry), and robust infrastructure, California is well-suited to host terrestrial analog sites supporting lunar and planetary exploration initiatives.

Steele A. Amundsen H. E. F.

Arctic Mars Analogue Svalbard Expedition 2007 [#2323]

This abstract summarizes the rover, space flight hardware testing and human rover interactions that took place on the Arctic Mars Analogue Svalbard Expedition 2006 and will present the results of life detection analysis undertaken in this Mars analogue environment.

Lee P. Braham S. Boucher M. Schutt J. W. Briggs G. Glass B. Gross A. Hine B. McKay C. P. Hoffman S. J. Jones J. A. Berinstain A. Comtois J.-M. Hodgson E. Wilkinson N.

Haughton-Mars Project: 10 Years of Science Operations and Exploration Systems Development at a Moon/Mars Analog Site on Devon Island, High Arctic [#2426]

The HMP on Devon Island, High Arctic, is currently the world's largest land-based Moon/Mars analog field research project. The project supports an exploration program aimed at advancing technologies and operational experience needed for planning human Moon-Mars exploration.

Kosmo J. Janoiko B. Eppler D. B. Ross A.

Out of the Lab and into the Field: A History of Desert RATS Advanced EVA and Surface Mobility Field Testing [#1824]

Development and testing of advanced planetary EVA and crew mobility systems for planetary surface operations involves a range of engineering design and logistics considerations that differ radically from our present EVA approach.

Diftler M. A. Ambrose R. O. Bluethmann W. J. Delgado F. J. Herrera E. Kosmo J. J.

Janoiko B. A. Wilcox B. H. Townsend J. A. Matthews J. B. Fong T. W. Bualat M. G.

Lee S. Y. Dorsey J. T. Doggett W. R.

Crew/Robot Coordinated Planetary EVA Operations at a Lunar Base Analog Site [#1937]

Under the direction of NASA's Exploration Technology Development Program, robots and space suited subjects from several NASA centers recently completed a very successful demonstration of coordinated activities indicative of base camp operations on the lunar surface.

Glass B. Cannon H. Hanagud S. Lee P. Paulsen G. Zacny K.
Planetary-Prototype Drilling Automation at a Mars-Analog Site [#1914]

Third-year (2006) test results from the Drilling Automation for Mars Exploration project, at a terrestrial analog site in an Arctic impact crater, successfully demonstrated hands-off low-power automated drilling operations including fault detection and drilling recovery.

Maule J. Fries M. Steele A. Amundsen H. Wainwright N. Damon M. AMASE Team
Desert-RATS Team LOCAD Team

Rapid On-Site Science Operations and Human-Robot Interactions at Lunar and Mars Analogue Sites [#2399]

EVA was performed at lunar (Cinder Lakes, Arizona) and Mars (Spitsbergen) analogue sites. Handheld instrumentation provided rapid results and immediate feedback — important benefits for future crews located on the Moon and Mars.

Fong T. Deans M. C. Lee P. Bualat M. G.

Simulated Lunar Robotic Survey at Terrestrial Analog Sites [#1487]

The Human-Robot Site Survey project is investigating techniques for lunar site survey. During 2007, we are conducting simulated lunar site surveys with multiple robots in two planetary analog environments: the NASA Ames Marscape and Haughton Crater.

Eppler D. B.

Analysis of Antarctic Logistics and Operations Data: Results from the Antarctic Search for Meteorites Austral Summer Season, 2002–2003 [#1818]

The operational and logistical experience associated with putting a team of four scientists in a hostile environment was investigated as part of the Antarctic Search for Meteorites (ANSMET) project during the austral summer of 2002–2003.

Duke M. B. Schowengerdt F. D. Crisafulli J. Day S. M. D. Fox R. A. Henley M. Marzwell N. I.

PISCES: Hawaii Facility for Simulation and Training [#1751]

PISCES, a new program for education and technology development, supported by the State of Hawaii, will include a robotic field test facility and a simulated human outpost. The robotic test capability will be initiated within the current year.

Scheuring R. A. Jones J. A. Lee P. Comtois J. M. Chappell S. Rafiq A. Braham S. Hodgson E.
Sullivan P. Wilkinson N. Bach D. Torney S.

NASA/Haughton-Mars Project (HMP) 2006 Lunar Medical Contingency Simulation at Devon Island [#1868]

In order to develop an evidence-base for handling a medical contingency on the lunar surface, a project using the Moon-Mars analog environment at Devon Island, Nunavut, high Canadian Arctic was conducted.

Clardy T. W. Fristad K. E. Rask J. C. McKay C. P.

Establishment of a Wireless Mesh Network and Positional Awareness System in a Mars Analogue Environment [#2234]

A wireless mesh network has been developed and tested at the Mars Desert Research Station for application to communications and positional awareness systems for the Moon and Mars.

McKay C. P. Coe L. H. Battler M. Bazar D. Boston P. Conrad L. Day B. Fletcher L. Graham P. Green R. Heldmann J. Muscatello T. Rask J. Smith H. Sun H. Zubrin R.

Spaceward Bound: Field Training for the Next Generation of Space Explorers [#1467]

Spaceward Bound is an educational program developed at NASA Ames in partnership with The Mars Society, and funded by the Exploration Systems Mission Directorate (ESMD) at NASA Headquarters.

Rask J. C. Heldmann J. Smith H. Battler M. Fristad K. Allner M. Clardy T. Clark O. Taylor C. Citron R. Corbin B. Negron G. Skok J. Taylor L. Centinello F. Duncan A. Fan A. Pavon S. Sutton W. Drakonakis V. Gilbert C. Graves S. Guzik G. Sahani R. McKay C. P.

The Spaceward Bound Field Training Curriculum for Moon and Mars Analog Environments [#2314]

We have developed the Spaceward Bound field curriculum for Moon and Mars analog environments. It is designed to train students in the fundamentals of Moon and Mars analog station operations, logistics, fieldwork, and scientific investigation.