

[ ] Abstract number

\* Designates speaker

## PRELIMINARY PROGRAM

### SPACE RESOURCES ROUNDTABLE II

Colorado School of Mines

November 8–10, 2000

*To view an abstract for a particular presentation, use the hand tool and click on the title of the abstract.*

#### Wednesday Morning, November 8, 2000

- 7:30 a.m. CONTINENTAL BREAKFAST and REGISTRATION
- 8:30 a.m. Greeting by Dr. John Trefny, President, Colorado School of Mines
- 8:45 a.m. Objectives and Organization of Meeting, M. Duke, Roundtable Program Chair
- 9:00 a.m. Mankins J. C. \*  
*A New Strategy for Exploration Technology Development: The Human Exploration and Development of Space (HEDS) Exploration/Commercialization Technology Initiative* [#7033]
- 9:30 a.m. Sanders G. B.\*  
*Space Resources Development – The Link Between Human Exploration And The Long-Term Commercialization Of Space* [#7039 ]
- 10:00 a.m. Ignatiev A. \* Freundlich A. Rosenberg S. Makel D. Duke M.  
*The Fabrication of Silicon Solar Cells on the Moon Using In-Situ Resources* [#7026]
- 10:15 a.m. Criswell D. R. \* Ignatiev A.  
*Recommendations by the “LSP and Manufacturing” Group to the NSF-NASA Workshop on “Autonomous Construction and Manufacturing for Space Electrical Power Systems”* [#7021]
- 10:30 a.m. BREAKOUT SESSION
- 12:00 noon LUNCH in Green Center

**Wednesday Afternoon, November 8, 2000**

- 1:00 p.m. Reed K. L. \*  
*An End-to-End Near-Earth Asteroid Resource Exploitation Plan* [#7006]
- 1:15 p.m. Boucher D. S. \* Dupuis E.  
*Core Drilling for Extra-Terrestrial Mining* [#7008]
- 1:30 p.m. Gertsch L. S. \* Gertsch R. E.  
*Mine Planning for Asteroid Orebodies* [#7030]
- 1:45 p.m. Blacic J. \* Dreesen D. Mockler T.  
*Results of a Conceptual Systems Analysis of Systems for 200-m-deep Sampling of the Martian Subsurface* [#7017]
- 2:00 p.m. Peeters M. Kovats J. A. \*  
*Drilling and Logging in Space: an Oil-well Perspective* [#7025]
- 2:15 p.m. Muff T. \* King R. H. Duke M. B.  
*Preliminary Analysis of a Small Robot for Martian Regolith Excavation* [#7035]
- 2:30 p.m. Hildebrand A. R. Carroll K. A. Balam D. D. Matthews J. M. Kuschnig R.  
Brown P. G. Tedesco E. F.  
*The Near-Earth Space Surveillance (NESS) Mission: Discovery, Tracking, and Characterization of Asteroids, Comets, and Artificial Satellites with a Microsatellite* [#7032]
- 2:45 p.m. Toklu Y. C. \*  
*Considerations on Use of Lunar Regolith in Lunar Constructions* [#7027]
- 3:00 p.m. Rowland S. \*  
*Lunar Mineral Resources — Extraction and Application* [#7012]
- 3:15 p.m. Blacic J. \* Dreesen D. Mockler T.  
*Developing Technologies for Space Resource Utilization — Concept for a Planetary Engineering Research Institute* [#7016]
- 3:30 p.m. SPACE MINING AND CONSTRUCTION BREAKOUT SESSION
- 6:00 p.m. RECEPTION

## Thursday Morning, November 9, 2000

- 7:30 a.m. CONTINENTAL BREAKFAST
- 8:30 a.m. Maryniak G. E.\*  
*Space Resources for Space Tourism* [#7003]
- 8:45 a.m. Reynerson C. M.\*  
*An Engineering and Cost Model for Human Space Settlement Architectures: Focus on Space Hotels and Moon/Mars Exploration* [#7002]
- 9:00 a.m. Rohwer, C. J.\*  
*Our Lunar Destiny: Creating a Lunar Economy* [7020]
- 9:15 a.m. Ganesh B. Matos C. A. Coker A. Hausaman J. Komerath N. M.\*  
*A Costing Strategy for Manufacturing in Orbit Using Extraterrestrial Resources* [#7010]
- 9:30 a.m. Blair B. R.  
*The Role of Near-Earth Asteroids in Long-Term Platinum Supply* [#7013]
- 9:45 a.m. Gray D. M.\*  
*Historic Frontier Processes Active in Future Space-based Mineral Extraction* [#7011]
- 10:30 a.m. BREAKOUT SESSION
- 12:00 noon LUNCH in Green Center *Tentative Guest Speaker: Buzz Aldrin*

**Thursday Afternoon, November 9, 2000**

- 1:00 p.m. Currier R. Blacic J. \*  
*Plasma Processing of Lunar and Planetary Materials* [#7018]
- 1:15 p.m. Yoshida H. \* Watanabe T. Kanamori H. Yoshida T. Ogiwara S. Eguchi K.  
*Experimental Study on Water Production by Hydrogen Reduction of Lunar Soil Simulant in a Fixed Bed Reactor* [#7009]
- 1:30 p.m. Gillett S. L. \*  
*Organic-based Dissolution of Silicates: A New Approach to Element Extraction from Lunar Regolith* [#7014]
- 1:45 p.m. McCullough E. D. Jr.\*  
*Recovery of Volatiles from the Moon and Associated Issues* [#7023]
- 2:00 p.m. Taylor L. A. \*  
*The Lunar Dust Problem: A Possible Remedy* [#7004]
- 2:15 p.m. Rodriguez G. J.  
*The Development and Realization of a Silicon-60-based Economy in CisLunar Space* [#7031]
- 2:30 p.m. Ramohalli K. \* Marcozzi M. Duke V.  
*LORPEX for Power Surges: Drilling, Rock Crushing* [#7036]
- 2:45 p.m. Parrish C. F. \* Jennings P. A.  
*Continuous Processing with Mars Gases* [#7024]
- 3:00 p.m. Rowland S. \*  
*Cost-Effective Approaches to Lunar Passenger Transportation* [#7015]
- 3:15 p.m. Sauter A. W. \*  
*Toward a More Comprehensive Evaluation of Space Information* [#7007]
- 3:30 p.m. BREAKOUT SESSION: PREPARATION OF CONCLUSIONS AND RECOMMENDATIONS
- 6:00 p.m. DINNER IN GREEN CENTER  
Speaker: G. J. Taylor  
*Bold Space Ventures Require Fervent Public Support* [#7001]

**Friday Morning, November 10, 2000**

7:30 a.m. CONTINENTAL BREAKFAST

8:30 a.m. PANEL DISCUSSION: ROPEY RIGHTS AND ECONOMIC DEVELOPMENT

Panel Members:

D. O'Donnell

*The Registration of Space-Based Property* [#7038]

D. M. Hope

*Privatized Space Research Property Ownership* [#7034]

C. J. Rohwer

*"Our Lunar Destiny: Creating a Lunar Economy"* [#7020]

E. Sadeh

**[no abstract available]**

10:30 a.m. CONCLUSIONS AND RECOMMENDATIONS BREAKOUT SESSION

12:00 noon LUNCH in Green Center

**PRINT-ONLY PRESENTATIONS**

Eustes A. W. III Bridgford E. Tischler A. Wilcox B. H.  
*Percussive Force Magnitude in Permafrost* [#7028]

Eustes A. W. III Gertsch L. S. Lu N. Bridgford E. Tischler A. Stoner M. S. Wilcox B. H.  
*Summary of the Issues Regarding the Martian Subsurface Explorer* [#7029]

Sibille L. Sen S. Curreri P. Stefanescu D.  
*Development of Metal Casting Molds by Sol-Gel Technology Using Planetary Resources* [#7022]

Streibeck D. Urdaneta M. Chapman P. Furfaro R. Ramohalli K.  
*A New Concept in Planetary Exploration: ISRU with Power Bursts* [#7037]

Taylor L. A.  
*Hot-Pressed Iron from Lunar Soil* [#7005]