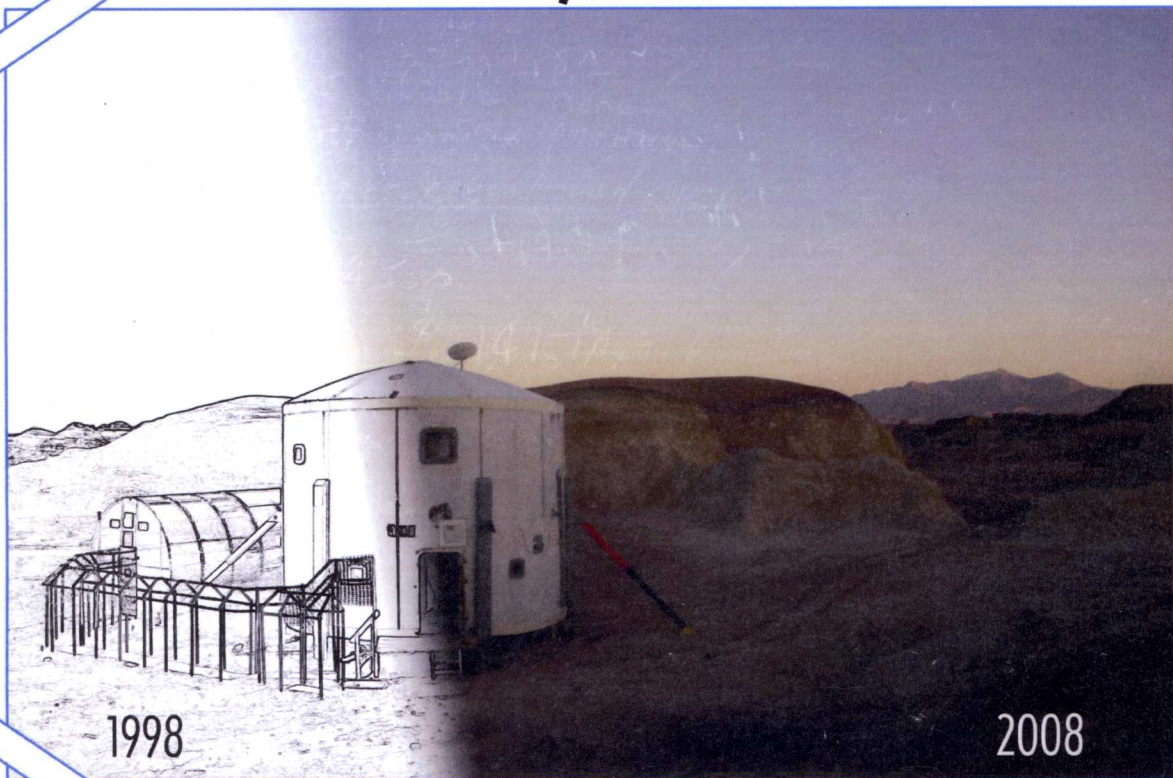


# 11th Annual International Mars Society Convention



"Back to where it began..."  
University of Colorado, Boulder  
August 14-17, 2008



**11th International Mars Society Convention  
August 14-17, 2008  
University of Colorado, Boulder**

**Wednesday, August 13, 2008**

***Best Western Boulder Inn***

2:00 pm – 4:30 pm – Early Registration

5:00 pm – 9:00 pm – Steering Committee Meeting

**Thursday, August 14, 2008**

**UMC, Aspen Room**

8:00 am - Convention opens, registration, check-in  
Vendor and Display set-up

**Plenary Sessions – Glenn Miller Ballroom**

9:00 – 10:00 am Dr. Robert Zubrin, President, The Mars Society, Opening Plenary

10:00 – 11:00 am Dr. James Garvin, Remote Sensing Specialist, Earth System  
Science Pathfinder Project, Goddard Space Flight Center

11:00 – 12:00 pm Dr. Bill Clancey, Chief Scientist for Human-Centered Computing,  
Intelligent Systems Division, NASA Ames Research Center

12:00 – 1:00 pm Lunch Break

1:00 – 2:00 pm Dr. Michael Simpson, President of the International Space  
University (ISU) in Strasbourg, France

**Evening Activities**

**UMC, Room 235 Multipurpose Room**

5:30 – 7:30 pm Reception (light food/bar) and Town Hall

**Glenn Miller Ballroom**

7:30 – 10:00 pm Political Debate - Representatives from the McCain and Obama  
campaigns will debate US Space Policy

**Track Locations**

Track 1 – Glenn Miller West

Track 2 – Glenn Miller East

Track 3 – Glenn Miller Center

Track 4 – Room 382-386 (2<sup>nd</sup> floor)



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**Thursday, August 14, 2008**

|                    | <u>Track 1</u>                                                                                           | <u>Track 2</u>                                                                                                                | <u>Track 3</u>                                                                                                       | <u>Track 4</u>                                                                    |
|--------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Time</b>        | <i>Glenn Miller West</i>                                                                                 | <i>Glenn Miller East</i>                                                                                                      | <i>Glenn Miller Center</i>                                                                                           | <i>Room 382-386</i>                                                               |
| <b>2:00 – 2:30</b> | <b>G. Frederick</b> –<br>Earth as Organism –<br>Humans as ?                                              | <b>J. Vannitsen &amp; A. Compagnon</b> –<br>Real Gain of Nuclear<br>Thermal Propulsion<br>compared to<br>Cryogenic Propulsion | <b>J. Bergstrom</b> –<br>HiRISE Observations:<br>Status after 600 Days<br>Of the MRO Primary<br>Science Phase        | <b>S. McDaniel</b> –<br>Polar Expedition 2008                                     |
| <b>2:30 – 3:00</b> | <b>M. Sarper</b> –<br>NASA Summer<br>Internship Experience<br>on the Orion Capsule<br>Project            | <b>B. Solomon</b> –<br>An Approach to<br>Gravity Modification as<br>a Propulsion<br>Technology                                | <b>J. Andrews-Hanna</b> –<br>Mars Impact Crater:<br>The dichotomy-forming<br>impact and the early<br>history of Mars | <b>T. Muscatello</b> –<br>Lunar Water Resource<br>Demonstration                   |
| <b>3:00 – 3:30</b> | <b>B. Yim</b> –<br>'Why Mars' Logic and<br>Fundamentals                                                  | <b>J. Allen</b> –<br>Modular Biospheres –<br>A New Way to Live on<br>Mars                                                     | <b>J. Secosky</b> –<br>A Good Way to Learn<br>About Mars – Use<br>Mars Satellites                                    | <b>D. Haslam</b> –<br>Lunar Lessons: Apollo<br>as an Analogue                     |
| <b>3:30 – 4:00</b> | <b>P. Todd</b> –<br>Brief Visits to a<br>Simulated Mars<br>Environment by<br>Microbes and<br>Communities | <b>C. Manning</b> –<br>Habitat for Human<br>Space Travel                                                                      | <b>D. Schuman</b> –<br>High Altitude<br>Mountaineering, Space<br>Flight and Exploration<br>Risk v. Reward            | <b>K. Chankaya</b> –<br>Mars: The Hazards<br>that Aren't                          |
| <b>4:00 – 4:30</b> | <b>K. Freelain</b> –<br>Ethical, Moral and<br>Religious Factors<br>Populate Mars                         | <b>J. Palaia</b> –<br>4Frontiers Corp – Real<br>Progress Towards a<br>Mars Settlement                                         | <b>D. Haslam</b> –<br>Go Mars – Save Earth<br>(45 mins)                                                              | <b>R. Carr</b> –<br>Profitable Exports<br>From Mars                               |
| <b>4:30 – 5:00</b> | <b>A. Greenwood</b> –<br>The Martian Rose                                                                | <b>C. Radcliff</b> –<br>Turtlebacks and<br>Domes: Adapting the<br>Carfree City Reference<br>Design to Martian<br>Settlements  | continued                                                                                                            | <b>D. O'Donnell</b> –<br>National<br>Reorganization for Off-<br>World Development |

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**Friday, August 15, 2008**

**UMC, Aspen Room**

8:00 am – Registration, check-in  
Vendors and Displays

**Plenary Sessions– Glenn Miller Ballroom**

8:30 – 9:30am Dr. Chris McKay, Planetary Scientist, Space Science Division,  
NASA Ames Research Center

9:30 –10:30 am Dr. Matt Mountain, Director, Space Telescope Science Institute

10:30 – 11:15 am Joe Cassady, Director, Emerging Exploration Space Systems,  
Aerojet

11:15 – 12:00 pm Geoffrey Yoder, Director, Exploration Systems Mission Directorate,  
NASA Headquarters

12:00 – 1:00 pm Lunch Break

1:00 – 2:00 pm Michael J. Straczynski, Award-winning Writer/Producer, Creator of  
Babylon 5

**Evening Activities**

**Glenn Miller Ballroom**

6:00 – 10:00 pm Mars Project Challenge, Finalists' Presentations and Voting

**Track Locations**

Track 1 – Glenn Miller West  
Track 2 – Glenn Miller East  
Track 3 – Glenn Miller Center  
Track 4 – Room 382 (2<sup>nd</sup> floor)  
Track 5 – Room 384 (2<sup>nd</sup> floor)



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**Friday, August 15, 2008**

|                    | <u>Track 1</u>                                                                                                           | <u>Track 2</u>                                                                                                 | <u>Track 3</u>                                                                                                                | <u>Track 4</u>                                                        | <u>Track 5</u>                                                                       |
|--------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                    |                                                                                                                          |                                                                                                                | <b>Spacesuits and Hazards</b>                                                                                                 | <b>Outreach / Volunteering</b>                                        | <b>Education/ Technology for Outreach</b>                                            |
| <b>Time</b>        | <i>Glenn Miller West</i>                                                                                                 | <i>Glenn Miller East</i>                                                                                       | <i>Glenn Miller Center</i>                                                                                                    | <i>Room 382</i>                                                       | <i>Room 384-86</i>                                                                   |
| <b>2:00 – 2:30</b> | <b>M. Bosch</b> – European Contributions to an International Human Mars Exploration Program                              | <b>G. Swanson</b> – Simulated Altitude Exposure May Help Mitigate Health Issues w/Exposure to prolonged Zero G | <b>A. Ross</b> – The Next Giant Leap                                                                                          | <b>E. Colvin</b> – How to Begin a Chapter and Make it Succeed         | <b>L. Weisbach</b> – Planting the Seed                                               |
| <b>2:30 – 3:00</b> | <b>J. Herholz</b> – ARCHIMEDES Mars Balloon Probe Project of the Gernam Mars Society (MDS)                               | <b>B. McGown</b> – SAP Space Mountaineering Analogue Project                                                   | continued                                                                                                                     | <b>S. Martin &amp; P. Czarnik</b> – Virtual Volunteerism              | <b>S. Kirkley</b> - How to Reach Middle School Children                              |
| <b>3:00 – 3:30</b> | <b>C. McKay</b> – Spaceward Bound, a Joint Mars Society and NASA Program to Train the Next Generation of Space Explorers | <b>G. Fisher</b> – Eggs in Two Baskets Oocyte Cryopreservation on Mars                                         | <b>G. Harris</b> – Hydraulic Antipodal Focusing As A Contributing Factor To Finger Tip Injury During The Use Of EVA Gloves    | <b>G. Scheerbaum</b> – Gaining Progressive Friends for Humans to Mars | <b>S. Nielson</b> - How to Reach Generation Y                                        |
| <b>3:30 – 4:00</b> | <b>A. Westenberg</b> – Spaceward Bound Australia                                                                         | <b>Oregon State University Robotics Club</b> – Overview from 2008 University Rover Challenge Champions         | <b>G. Harris</b> – The Development of the DL/H-1 Full Pressure Suit for Private Spaceflight                                   | <b>J. Webster</b> – Political Outreach Workshop (1 hour)              | <b>C. Radcliff</b> – Crowdsourcing: Project Design for Gen X, Gen Y and Social Media |
| <b>4:00 – 4:30</b> | <b>C. Spray</b> – The Future of Fictional Mars                                                                           | <b>T. Mackintosh</b> – Money for Mars (1 hour)                                                                 | <b>P. Todd</b> – Gravity and Radiation: Can a Flight Crew get to Mars and Back Safely if a Solar Proton Storm is Encountered? | <b>Political Outreach Workshop</b> continued                          | <b>B. Mackenzie</b> – Mars Foundation Education Center                               |
| <b>4:30 – 5:00</b> | <b>M. Christov</b> – More Payload Mass to Mars                                                                           | <b>Money for Mars</b> continued                                                                                | <b>G. Drake</b> – Will the Manned Mars Mission Survive the Climate Crisis?                                                    | Open                                                                  | Open                                                                                 |



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**Saturday, August 16, 2008**

**UMC, Aspen Room**

8:00 am – Registration, check-in  
Vendors and Displays

**Plenary Sessions– Glenn Miller Ballroom**

- 9:00 – 10:00 am Dr. Carol Stoker, Planetary Scientist, NASA Ames Research Center, Co-Investigator Phoenix Mars Lander
- 10:00 – 11:00 am Dr. Carol Porco, Planetary Scientist, Imaging Science Lead, Cassini
- 11:00 – 12:00 am George Whitesides, Executive Director, National Space Society
- 12:00 – 1:00 pm Lunch Break
- 1:00 – 2:00 pm Elon Musk, CEO/CTO, SpaceX

**Afternoon Programming**

**Super Track: Religion and Space  
Glenn Miller Ballroom Center**

- 2:00 – 2:40 pm Dr. Ted Peters, Professor of Systematic Theology at Pacific Lutheran Theological & Julie Froehlig, Research Assistant for the "Peters ETI Religious Crisis Survey"
- 2:40 – 3:20 pm Brother Guy Consolmagno, Ph.D., S.J., Vatican Observatory, Vatican City State
- 3:20 – 4:00 pm Michael J. Straczynski, Award Winning American writer/producer
- 4:00 – 4:40 pm Rt. Rev. James Heiser, Diocesan Bishop, The Evangelical Lutheran Diocese of North America
- 4:40 – 5:30 pm Panel Discussion Dr. Ted Peters, Julie Froehlig, Brother Guy Consolmagno, Michael J. Straczynski, Rev. James Heiser and Robert Zubrin)

**Evening Activities**

**Glenn Miller Ballroom West**

6:15 p.m. – 7:00 p.m. – Appetizers/Bar

**Glenn Miller Ballroom Center**

7:00 p.m. – 11:00 p.m. – Eleventh Annual Mars Society Banquet and Awards Dinner  
Featured speaker: Robert Zubrin, "How to Live on Mars",  
preview of his new book

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**Sunday, August 17, 2008**

**UMC, Aspen Room**

8:00 am – Registration, check-in  
Vendors and Displays

1:00 pm Registration closes, Vendors and Displays begin breakdown

**Plenary Sessions– Glenn Miller Ballroom**

9:00 – 10:00 am Michael Carroll, Award-winning Astronomical, Science Fiction and  
Paleo Artist and Science Journalist

10:00 – 10:45 am Dr. David Spires, University of Washington, Senior Instructor

11:00 – 12:00 am Panel: The Best Road to Mars

12:00 – 1:00 pm Lunch Break

**4:00 – 4:30 pm Closing Meeting, Dr. Robert Zubrin**

**Track Locations:**

Track 1 – Glenn Miller West

Track 2 – Glenn Miller East

Track 3 – Glenn Miller Center

Track 4 – Room 382-386 (2<sup>nd</sup> floor)



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Sunday, August 17, 2008

|                | <u>Track 1</u><br>Social Trends/<br>Outreach Orgs                                                                               | <u>Track 2</u><br>MDRS                                                                                     | <u>Track 3</u><br>Technology for<br>Mars                                                                 | <u>Track 4</u>                                                                                      |
|----------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Time           | Glenn Miller West                                                                                                               | Glenn Miller East                                                                                          | Glenn Miller Center                                                                                      | Room 382-386                                                                                        |
| 1:00 –<br>1:30 | <b>T. Hill</b> –<br>The Bored<br>Billionaire's Guide to<br>Spaceflight in 2018                                                  | <del>A. Carr</del> <b>R. Carr</b><br><b>Profitable<br/>Martian<br/>Exports</b>                             | <b>S. Metschan</b> –<br>Saving our Current<br>Heavy Lift Launch<br>System for Manned<br>Mars Exploration | <b>G. Drake</b> –<br>Two Threats to<br>Terraforming Mars<br>and How to Counter<br>Them              |
| 1:30 –<br>2:00 | <b>L. Ice</b> –<br>Mars Property<br>Ownership                                                                                   | <b>A. Westenberg</b> –<br>Mars Oz                                                                          | <b>K. Nebergall</b> –<br>Mars Sample Return<br>– Project Rigel                                           | <b>G. Drake &amp; G.<br/>Frederick</b> –<br>A Proposed Long<br>Term Plan for<br>Terraforming Mars   |
| 2:00 –<br>2:30 | <b>H. Fulton</b> –<br>MarsDrive: Projects,<br>Objectives and<br>Strategies                                                      | <b>C. Shepherd</b> –<br>Observations from<br>the Commander:<br>NASA Spaceward<br>Bound V / MDRS<br>Crew 61 | <b>N. Chapin</b> –<br>Design and Robotics<br>to Reduce Chore<br>Time on Mars                             | <b>M. Hilton</b> –<br>The Real Reason For<br>Exploring Mars                                         |
| 2:30 –<br>3:00 | <b>B. Mackenzie</b> –<br>Get Involved / a<br>Roadmap for Mars<br>Settlement                                                     | <b>E. Colvin</b> –<br>MDRS Crew 69 2008                                                                    | <b>R. Colon</b> –<br>Mini Laboratories on<br>Mars                                                        | <b>L. Gertsch</b> –<br>A Cutterhead for<br>Excavating Ice-Soil<br>Mixtures on the Moon<br>and Mars  |
| 3:00 –<br>3:30 | <b>A. Westenberg</b> –<br>Collaborative Online<br>Knowledge Base for<br>Human Planetary<br>Mission Simulation –<br>Hablife Wiki | <b>B. Yim</b> –<br>MDRS Crew 70                                                                            | <del>A. D.</del> <b>D. Jedynak</b><br><b>Focused<br/>Marketing<br/>for Mars<br/>Outreach</b>             | <b>E. Colvin</b> –<br>Study of the<br>Subsurface Radiation<br>Environment in the<br>Canadian Arctic |
| 3:30 –<br>4:00 | Open                                                                                                                            | Open                                                                                                       | Open                                                                                                     | Open                                                                                                |



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|                        | <u><b>Track 1</b></u><br><b>Social Trends/<br/>Outreach Orgs</b>                                                                | <u><b>Track 2</b></u><br><b>MDRS</b>                                                                       | <u><b>Track 3</b></u><br><b>Technology for<br/>Mars</b>                                                  | <u><b>Track 4</b></u>                                                                               |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Time</b>            | <i>Glenn Miller West</i>                                                                                                        | <i>Glenn Miller East</i>                                                                                   | <i>Glenn Miller Center</i>                                                                               | <i>Room 382-386</i>                                                                                 |
| <b>1:00 –<br/>1:30</b> | <b>T. Hill –</b><br>The Bored<br>Billionaire's Guide to<br>Spaceflight in 2018                                                  | <b>H. Gregory –</b><br>Project M.A.S.T.                                                                    | <b>S. Metschan –</b><br>Saving our Current<br>Heavy Lift Launch<br>System for Manned<br>Mars Exploration | <b>G. Drake –</b><br>Two Threats to<br>Terraforming Mars<br>and How to Counter<br>Them              |
| <b>1:30 –<br/>2:00</b> | <b>L. Ice –</b><br>Mars Property<br>Ownership                                                                                   | <b>A. Westenberg –</b><br>Mars Oz                                                                          | <b>K. Nebergall –</b><br>Mars Sample Return<br>– Project Rigel                                           | <b>G. Drake &amp; G.<br/>Frederick –</b><br>A Proposed Long<br>Term Plan for<br>Terraforming Mars   |
| <b>2:00 –<br/>2:30</b> | <b>H. Fulton –</b><br>MarsDrive: Projects,<br>Objectives and<br>Strategies                                                      | <b>C. Shepherd –</b><br>Observations from<br>the Commander:<br>NASA Spaceward<br>Bound V / MDRS<br>Crew 61 | <b>N. Chapin –</b><br>Design and Robotics<br>to Reduce Chore<br>Time on Mars                             | <b>M. Hilton –</b><br>The Real Reason For<br>Exploring Mars                                         |
| <b>2:30 –<br/>3:00</b> | <b>B. Mackenzie –</b><br>Get Involved / a<br>Roadmap for Mars<br>Settlement                                                     | <b>E. Colvin –</b><br>MDRS Crew 69 2008                                                                    | <b>R. Colon –</b><br>Mini Laboratories on<br>Mars                                                        | <b>L. Gertsch –</b><br>A Cutterhead for<br>Excavating Ice-Soil<br>Mixtures on the Moon<br>and Mars  |
| <b>3:00 –<br/>3:30</b> | <b>A. Westenberg –</b><br>Collaborative Online<br>Knowledge Base for<br>Human Planetary<br>Mission Simulation –<br>Hablife Wiki | <b>B. Yim –</b><br>MDRS Crew 70                                                                            | Open                                                                                                     | <b>E. Colvin –</b><br>Study of the<br>Subsurface Radiation<br>Environment in the<br>Canadian Arctic |
| <b>3:30 –<br/>4:00</b> | Open                                                                                                                            | Open                                                                                                       | Open                                                                                                     | Open                                                                                                |