

2018 HUMANS TO MARS SUMMIT

The George Washington University
May 8 - 10, 2018

Presented by  EXPLORER MARS



May 8, 2018 – Day 1 | The Humans to Mars Summit 2018

8:00-8:30 | Continental Breakfast (Danish, fruit, juice, coffee) & Registration

8:30-8:40 | Opening Introductions

- [Artemis Westenberg](#) (Explore Mars, Inc., President)
- [Chris Carberry](#) (Explore Mars, Inc., CEO)

8:40- 9:00 | A Year in Review: The *Humans to Mars Report* 2018

- [Joe Cassady](#) (Aerojet Rocketdyne, Executive Director, Space; & Explore Mars, Inc., Board of Directors Member)

9:00-9:30 | Congressional Panel discussion

- Moderator: **Scott Hubbard** (Prof. Scott Hubbard, Stanford University, Former Director NASA Ames)
- [Ed Perlmutter](#) (Congressman, US House of Representatives, 7th District Colorado)
- **Bill Posey** (United States House of Representatives) *via Recorded Video Message*

9:30-10:00 | Key Decisions on the Path to Mars - A Conversation

- Moderator: **Jeff Foust** (Space News, Senior Staff Writer)
- **Thomas Zurbuchen** (NASA HQ, Associate Administrator, Science Mission Directorate)
- **Peter McGrath** (Boeing, Director, Business Development, Space Exploration Division)
- **Eric Stallmer** (Commercial Spaceflight Federation, President)

10:00-10:45 | Critical Mars Science: An International Collaboration

- Moderator: **Mat Kaplan** (Planetary Radio, Host and Producer)
- **Pascale Ehrenfreund** (Chair of the Executive Board of the DLR, German Aerospace Center)
- **James Green** (NASA HQ, Director, Planetary Science)
- **Adnan Al Rais** (Mohammed Bin Rashid Space Center; Director of the Mars 2117 Program)

10:45-11:05 | Break

11:05-11:35 | Talking to Mars: increasing the bandwidth of Deep Space Network (DSN)

- **Vint Cerf** (Vice President and Chief Internet Evangelist, Google)

11:35-12:15 | Listening to the Mars Generation: A Student led Conversation

- Moderator: **Brittany Wedd** (The Mars Generation Nonprofit Advisory Board Chair)
- **Morgan Irons** (The Mars Generation Nonprofit Advisory Board Vice Chair)
- **Aaron Shepard** (The Mars Generation Nonprofit Advisory Board Member)
- **Russell Widder** (The Weiss School)
- **Bradley Link** (The Weiss School)

12:15-1:00 | The Economics and Manufacturing of Space Exploration

- Moderator: **Ian Steff** (U.S. Dept. of Commerce)
- **Rick Tumlinson** (Deep Space Industries)
- **Alex MacDonald** (NASA HQ)
- **Maggie Handler** (Commercial Spaceflight Federation)

1:00-2:00 | Lunch Break

2:00-2:15 | [Janet Ivey \(Janet's Planet, President and Chief Creative Officer\)](#)

2:15-2:25 | Student Speaker: **Owen Welch** (The Weiss School)

2:25-3:10 | How Cislunar Activities Feed into the Human Exploration of Mars

- [Moderator: Mark Mozena \(United Launch Alliance, NASA/FAA Relations Washington Operations, Manager\)](#)
- [Mary Lynne Dittmar \(Coalition for Deep Space Exploration\)](#)
- [Steve Jolly \(Chief Engineer, Commercial Civil Space, Lockheed Martin Company\)](#)
- **John Thornton** (CEO, Astrobotic)
- **George Sowers** (Colorado School of Mines)

3:10-3:30 | [Takuya Onishi, JAXA, Astronaut, ISS Expedition 48/49](#)

3:30-3:45 | Break

3:45-4:30 | Simulating Mars: Mars Design and Analog

- [Moderator: Jim Adams \(former Deputy Chief Technologist at NASA\)](#)
- [Vera Mulyani \(Mars City Design\)](#)
- [Sean Young \(HP Worldwide Segment Manager, Product Development & AEC\)](#)
- [Adnan Al Rais \(Mohammed bin Rashid Space Center; Director of the Mars 2117 Program\)](#)
- [Susan Ip-Jewell \(CEO/Co-Founder, Mars Academy USA\)](#)
- [Joseph Gruber \(Mission Support Coordinator, Hi-SEAS\)](#)

4:30-5:15 | *The First*, A Hulu Original Series

- [Moderator: Kellie Gerardi \(Media Specialist, Commercial Spaceflight Federation\)](#)
- [Beau Willimon \(Creator and Executive Producer for The First and House of Cards\)](#)
- [LisaGay Hamilton \(Actress, The First\)](#)
- [Michael López-Alegría \(Technical Advisor, The First; Space Shuttle Astronaut\)](#)
- [Amy Webb \(Futurist Consultant, The First\)](#)

5:15-5:30 | [Ted Cruz \(US Senator, Texas\)](#)

- Introduction by: **Paul Juola** (Lockheed Martin Company, Vice President, Legislative Affairs)

5:30-7:00 | Onsite Evening Reception, 5:45 pm to 7:30 pm, ([City View Room, The George Washington University](#)) ([Separate Registration Required](#))

8:00 PM | Washington, D.C. Premier Film Screening and Panel – [Seat 25 \(Separate Registration Required\)](#)

- [Moderator: Keri Kukral \(Raw Science, CEO and Co-Founder\)](#)
- [Nicholas Agnew \(Seat 25 Director; Co-writer\)](#)
- [Madeleine Cooke \(Seat 25 Actress; Co-writer\)](#)
- [Janet Ivey \(Janet's Planet, President and Chief Creative Officer\)](#)

May 9, 2018 – Day 2 | The Humans to Mars Summit 2018, Lisner Auditorium

8:00-8:30 | Continental Breakfast & Registration (Danish, fruit, juice, coffee)

8:30-8:35 | Welcome and Introduction: [Harley Thronson](#) (NASA GSFC)

8:35-8:55 | Opening Keynote Speaker: [NASA Administrator Jim Bridenstine](#)

[Introduction by: Roger Teague \(Boeing, Vice President of Space, Intelligence, and Missile Defense, Government Operations\)](#)

8:55-9:55 | Achieving Human Exploration of Mars: AM V Architecture Report, a discussion with representatives from each of the three breakout teams

- [Moderator: John Connolly \(NASA\)](#)
- [Humphrey "Hoppy" Price \(Breakout 1, NASA JPL, Mars Program Chief Engineer\)](#)
- [Molly Anderson \(Breakout 2, NASA HQ, Principal Technologist, Space Technology Mission Directorate\)](#)
- [Timothy Cichan \(Breakout 3, Lockheed Martin Company, Space Exploration Technology Architect\)](#)

9:55-11:05 | ISS and Occupying the Stepping Stones to Mars

- Moderator: **Sam Scimemi** ([NASA HQ HEOMD](#))
- **Kathleen Boggs** ([NASA HQ, International Space Station Division, Human Exploration and Operations Mission Directorate](#))
- **Mark Ortiz** (Boeing: Program Manager, NextSTEP-2)
- **Steve Davison** (NASA HEOMD)
- **Gary Strangman** (Harvard University)
- **John Wetzel** ([SNC](#))

11:05-12:15 | How to Make Human Travel to Mars Affordable

- Moderator: **Scott Hubbard** ([Stanford University](#))
- **Robert Shishko** ([NASA JPL](#))
- **Josh Brost** ([SpaceX](#))
- **Humphrey "Hoppy" Price** ([NASA JPL, Mars Program Chief Engineer](#))
- **Torrey Radcliffe** ([Aerospace Corporation](#))

12:15-2:00 | Speaker Lunch: **Jeffrey Manber** (CEO, Nanoracks) ([Separate Registration Required, TBA](#))

- **Special Guest Speaker: David Blackmore** ([Master Brand Ambassador, Glenmorangie](#))

1:00-2:00 | Robotic Reconnaissance and Scientific Preparation for Humans to Mars

- Moderator: **Jacob Bleacher** ([NASA GSFC](#))
- **Amy McAdam** ([NASA GSFC](#))
- **Sarah Stewart Johnson** (Georgetown University)
- **Kevin Lewis** (John Hopkins University)

2:00-5:30 | Parallel Afternoon Technical Sessions

Session 1 | Sustaining Mars Exploration: Living Off the Land, Amphitheater, Marvin Center

2:00-3:30 | **Session 1a**

- Moderator: **Therese Griebel** (NASA HQ STMD)
- In-Situ Resource Utilization (ISRU): **Gerry Sanders** ([NASA JSC](#))
- Surface Power: **LaNetra Tate** (NASA HQ STMD)
- Planetary Protection: **Lisa Pratt** (NASA HQ OSMA)
- Agriculture: **Francesc Godia** ([European Space Agency](#))

3:30-5:30 | **Session 1b** Environmental Control and Life Support Systems (ECLSS)

- Moderator: **Grant Anderson** ([Paragon Space Development Corp, President and CEO](#))
- **Darren Samplatsky** (UTAS)
- **Robyn Gatens** ([NASA HQ](#))
- **Greg Gentry** ([Boeing](#))
- **Ted Bonk** (Honeywell)

Session 2 | Getting to Mars, Essential Technologies to Enable Mars Exploration, Betts Auditorium, Marvin Center

2:00-3:30| **Session 2a**

- **Space Propulsion: Moderator Les Johnson** ([NASA MSFC](#))
- SEP: **David Mazella** (NASA GRC)
- **Chemical Propulsion: Robert Chambers** ([Lockheed Martin Company](#))
- VASIMR: **Franklin Chang-Diaz** ([Ad Astra Rocket Company, President, CEO](#))
- Nuclear Thermal Propulsion: **Jonathon Witter** ([Chief Engineer, Advanced Technology Programs, BWX Technologies](#))

3:30-5:30 | **Session 2b**

- Moderator: **Richard M. Davis** ([NASA HQ, SMD](#))
- Mars Landers:
 - **Michelle Munk** ([NASA LaRC](#))
 - **Tara Polsgrove** (NASA MSFC)
- Mars Reconnaissance:
 - **Sydney Do** (NASA JPL)
 - **Kennda Lynch** (Georgia Institute of Technology)
 - **Jennifer Eigenbrode** (NASA GSFC)
- Mars Surface Habitat & Laboratory
 - **Steven Hoffman** (NASA JSC)
 - **Andrew Owens** (Massachusetts Institute of Technology)

2:00-5:30 **Session 3** | Architectures for Human Exploration, Lisner Auditorium

- Moderator: John Connolly (NASA, Mars Study Capability Team Lead)
- **Josh Brost** ([SpaceX](#))
- **James Garvin** (NASA)
- **Franco Fenoglio** ([Head of Human Space flights and Transportation Programs Unit, Thales Alenia Space, Italy](#))
- **Timothy Cichan** ([Lockheed Martin Company, Space Exploration Technology Architect](#))

6:30-8:00 | **Off-site Evening Reception** at the [National Academy of Sciences, Great Hall](#) ([Separate Registration Required](#))

Featuring the very popular Ardbeg Single Malt Scotch Whisky Tasting

- [Special Guest: David Blackmore](#) (Master Brand Ambassador, Glenmorangie)

May 10, 2018 – Day 3 | The Humans to Mars Summit 2018, Lisner Auditorium

Technology, Innovation, and Mars

7:30-8:30 | Continental Breakfast & Registration (Danish, fruit, juice, coffee)

8:30-9:00 | Humanity 2.0: How the Fusion of Art and Technology will Enable a Better Version of Humanity on Mars

- [Domhnaill Hernon](#) (Head of Experiments in Arts and Technology, Nokia Bell Labs)

9:00-9:50 | Virtual & Augmented Reality: Emergent Technologies Aiding Mars Exploration

- [Moderator: Julian Reyes](#) (Fusion)
- [Peggy Wu](#) (United Technologies Corporation)
- [Sean Young](#) (HP, Worldwide Segment Manager, Product Development & AEC)
- **Davide Picciotto** (Digital Enterprise Thought Leader, Siemens PLM Software)
- **Matthew Noyes** (Spacecraft Software Engineering NASA Johnson Space Center)
- **Sonja Schmer-Galunder** (Senior Research Scientist at Smart Information Flow Technologies)

9:50-10:05 | Special **STEAM** Announcement

10:05-10:20 | Break

10:20-11:10 | Artificial Intelligence (A.I.) & Machine Learning: Advancing Humanity To Mars Together

- Moderator: **Andrew Petro** (NASA HQ, Program Integration Manager, Space Technology Mission Directorate)
- [Steve Chien \(NASA JPL\)](#)
- [Chris Codella \(IBM\)](#)
- **Steven DeAngelis** (CEO, Enterra Solutions)

11:10-11:30 | **Markus Levin** (Co-Founder XYO Network)

11:30-12:15 | Engage & Educate: How Social Media Amplifies Awareness and Support for the Journey to Mars Missions

- Moderator: [Nicole Harrison \(Executive Director, The Mars Generation\)](#)
- [Athena Brensberger \(Science Communicator, Influencer, International Model, @AstroAthens\)](#)
- [Rich Evans \(Social Media Manager, Explore Mars, Inc.\)](#)
- [Kellie Gerardi \(Media Specialist, Commercial Spaceflight Federation\)](#)
- **Jason Townsend** (Head of Social Media, NASA HQ)

12:15-1:00 | Why Mars: A Boisterous Discussion with Space Luminaries

- Moderator: [Mat Kaplan \(Planetary Radio\)](#)
- [Saralyn Mark \(CEO, iGiant\)](#)
- [Jeff Bingham \(Senior Adviser at US Senate \(Retired\)\)](#)
- [James Garvin \(Chief Scientist, NASA GSFC\)](#)
- [Keri Kukral \(Raw Science, CEO and Co-Founder\)](#)
- [Janet Ivey \(Janet's Planet, President and Chief Creative Officer\)](#)
- [Nicholas Agnew \(Seat 25 Director; Co-writer\)](#)
- [Abigail "Astronaut Abby" Harrison \(Founder, The Mars Generation, Aspiring Astronaut\)](#)
- [Artemis Westenberg \(Explore Mars, Inc., President\)](#)

1:00 | Closing Comments

Afternoon Events & Opportunities

2:00-3:30 | Capitol Hill Briefing Panel: *Innovating Toward Mars* [Russell Senate Office Building, Room 253](#) ([Separate Registration Required](#))

- [Moderator: **Abigail "Astronaut Abby" Harrison**](#) (Founder, The Mars Generation, Aspiring Astronaut)
- [Joe Cassidy](#) (Aerojet Rocketdyne, Executive Director, Space; & Explore Mars, Inc., Board of Directors Member)
- [Peggy Wu](#) (United Technologies Corporation)
- [Chris Codella](#) (IBM)

2:00-5:00 | Mars Day on the Hill & Distribution of H2MR 2018 to Congressional Offices ([Separate Registration Required](#))

7:00 PM | Film Screening and Panel: *Fight For Space* ([Separate Registration Required](#), [Landmark Theater, Washington, D.C.](#))

- [Paul Hildebrandt](#) (Fight For Space, Director)
- [Jeff Bingham](#) (Senior Adviser at US Senate (Retired))
- [James Muncy](#) (Space Policy Consultant & Entrepreneur)

May 11, 2018

9:00-5:00 | Distribution of H2MR 2018 to Congressional Offices ([Separate Registration Required](#))

Connect with us!



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Questions? Contact:

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