



American Astronautical Society

***Astronauts and Robots:  
Partners in Space Science and Exploration***

**May 12-13, 2015**

Theodore von Kármán Auditorium – Jet Propulsion Laboratory  
Pasadena, California

**- Final Program -**

**Tuesday, May 12**

**7:15 AAS Corporate Members Breakfast (Invitation Only)**

**7:30 Registration Opens / Networking / Continental Breakfast**

**8:30 Welcome and Announcements**  
Walt Faulconer, AAS Executive Vice President

**8:45 JPL Welcome and Update**  
Charles Elachi, Director

**9:15 Keynote - Astronauts and Robots: Pathfinders to Mars**  
Jim Bell, Professor, School of Earth and Space Exploration, Arizona State University; President, Board of Directors, The Planetary Society

**9:45 Break**

**10:00 Astronauts and Robots Working Together: Personal experience and looking to the future**  
John Grunsfeld, Associate Administrator for Science, NASA HQ

**10:45 NASA's Human Exploration and Operations Program Update**  
Jason Crusan, Director, Advanced Exploration Systems Division, Human Exploration and Operations Mission Directorate, NASA HQ

**11:30 Awards Lunch and Conversation with the JPL Mars Program Team**  
Fuk Li, Director for Mars Exploration; Ashwin Vasavada, MSL/Curiosity Project Scientist; Matt Wallace, Mars 2020 Deputy Project Manager; and Jim Watzin, Director, Mars Exploration Program, NASA HQ  
11:30 to 12:00 – get food and return to seats  
12:00 to 1:00 – award presentations and conversation with Mars Team

**1:00 Integration of Robotic and Human Exploration**  
Moderator: Scott Hubbard, Department of Aeronautics and Astronautics, Stanford University

Panelists:

- Ashwin Vasavada, MSL/Curiosity Project Scientist, JPL
- William Clancey, Senior Research Scientist, Florida Institute for Human and Machine Cognition
- John Grunsfeld, Associate Administrator for Science, NASA
- David Des Marais, Principal Investigator, Astrobiology Institute, NASA ARC
- Jennifer Trosper, Curiosity Deputy Project Manager, JPL

**3:00 Break**

**3:15 Destination Mars: Pathways**

Moderator: John Baker, Manager, Human/Robotic Systems Engineering Office, JPL

Panelists:

- John Guidi, Deputy Director, Directorate Integration Office, Human Exploration and Operations Mission Directorate, NASA HQ
- Mike Gernhardt, Manager, Environmental Physiology Laboratory, NASA JSC
- Lou Friedman, Executive Director Emeritus, The Planetary Society
- Joe Parrish, Deputy Manager, Mars Program Formulation, JPL
- Steve Stich, Director for Exploration, Integration and Science, NASA JSC

**5:15 Networking Reception with Movies**

Theodore von Kármán Auditorium

**Wednesday, May 13**

**7:30 Registration Opens / Networking / Continental Breakfast**

**8:15 Opening Remarks:**

Rob Ambrose, Chief, Software, Robotics and Simulation Division, NASA JSC

**8:45 Environment for Pragmatic Realities: Politics, Money and Technology**

Moderator: Firouz Naderi, Director for Solar System Exploration, JPL

Panelists:

- Michael Potter, Senior Fellow, International Institute of Space Commerce
- Bill Adkins, Washington Consultant for The Planetary Society; former Senior Staff, House Science Sub-Committee
- Joel Parriott, Deputy Executive Officer & Director of Public Policy, American Astronomical Society
- Marcello Coradini, ESA Representative to JPL

**10:15 Break**

**10:30 Roles and Perspectives of the Aerospace Industry**

Moderator: Larry James, Deputy Director, JPL

Panelists:

- Jim Crocker, Vice President & General Manager, SSC International, Lockheed Martin Space Systems Company
- John Shannon, Program Manager, International Space Station, Boeing
- Gwynne Shotwell, President and COO, SpaceX

- Frank Culbertson, Executive Vice President and President, Space Systems Group, Orbital ATK
- Jeff Grant, Sector Vice President and General Manager, Space Systems, Northrop Grumman

### **12:15 Lunch and Conversation with JPL's Dawn Team**

Carol Raymond, Dawn Mission Deputy PI; Bob Mase, Dawn Project Manager; Marc Rayman, Dawn Mission Director and Chief Engineer; and Julie Castillo-Rogez, Research Scientist

12:15 to 12:45 – get food, return to seats

12:45 to 1:45 – conversation with Dawn Team

### **1:45 NASA's Robotic Space Science Program Today: Current status and selected highlights of late-breaking science discoveries**

Moderator: Dan McCleese, JPL Chief Scientist

Panelists

- Astrophysics – Jonas Zmuidzinas, Merle Kingsley Professor of Physics; Caltech; Chief Technologist, JPL
- Planetary Science – Kevin Hand, Deputy Chief Scientist, Solar System Exploration Directorate, JPL
- Earth Science – Randall Friedl, Manager, Earth System Science Formulation Office, JPL
- Heliophysics – Marco Velli, Professor of Space Physics, Department of Earth, Planetary and Space Sciences, UCLA
- Exoplanets – Scott Gaudi, Professor of Astronomy, The Ohio State University

### **3:15 Break**

### **3:30 Future Missions – Confirmed or Nearing Confirmation**

Moderator: Jakob van Zyl, Associate Director for Program Formulation, JPL

Panelists:

- WFIRST/AFTA – Neil Gehrels, Chief, Astroparticle Physics Laboratory, NASA GSFC
- Solar Probe – Steve Arnold, Deputy Business Area Executive, JHU/APL
- Europa Mission – Bob Pappalardo, Senior Research Scientist and Europa Clipper Pre-Project Scientist, JPL
- SWOT Mission – Tamlin Pavelsky, Assistant Professor, Geological Sciences, The University of North Carolina at Chapel Hill
- Exoplanet Technology Demo Missions – Gary Blackwood, Manager, NASA Exoplanet Exploration Program, JPL/NASA

### **5:00 Final Thoughts**

William Clancey, Senior Research Scientist, Florida Institute for Human and Machine Cognition and Walt Faulconer, AAS Executive Vice President

### **Closing Reception with Optional Tour of JPL**

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