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We envision a sustainable economy in space that looks a lot like the one on Earth. ASCEND promotes collaboration between the space community and adjacent industries to accelerate market development and embrace the opportunities that come with increased activity in space. Propel new ideas and help forge our sustainable off-world future for all at 2024 ASCEND.

FEATURED SPEAKERS



BARBARA GOLF Strategic Advisor for Space Domain Awareness, Space Systems Command

Los Angeles Air Force Base, **United States Space Force**



Chief Astronaut **Axiom Space**



SHAWNA PANDYA Director

Space Medicine Group, International Institute for **Astronautical Sciences**



NALIN RATNAYAKE PICASSO Program Officer, Planetary Exploration Science Technology Office



MICHAEL SARAFIN Artemis Mission Manager, Moon to Mars Program Office



LT. GEN. JOHN SHAW, USSF (RET.) Former Deputy Commander, U.S. Space Command **United States Space Force**

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OUTER SPACE HERITAGE SUMMIT

5 JUNE 2024 | STEVEN F. UDVAR-HAZY CENTER



GAIAA

AGENDA

SPEAKERS

8:30-9 a.m. Registration and Light Breakfast

9-9:15 a.m. **Welcome**

Dan Dumbacher, Chief Executive Officer,, American Institute of Aeronautics and Astronautics (AIAA)

9:20-10 a.m. Opening Keynote

Thomas D. Jones, Veteran NASA Astronaut

10:05-10:55 a.m. History & Preservation

Teasel Muir-Harmony, Curator, Space History Department, National Air and Space Museum, Smithsonian Institution

Lisa Young, Museum Conservator, National Air and Space Museum, Smithsonian Institution

Brian Odom, Chief Historian, NASA

Robert Pearlman, Editor and Founder, collectSPACE

This panel will set the framework of the day's discussions about outer space heritage. Topics will include the definition and evaluation of the historical significance of lunar sites, emphasizing the current process for stakeholder selection and how their perspectives contribute to decisions made about items and aspects of historical record.

11-11:15 a.m. Morning Break

11:15-12 p.m. Policy & Law

David Reinecke, Foreign Affairs Officer, Office of Space Affairs, Bureau of Oceans and International Environmental and Scientific Affairs

Michelle Hanlon, Co-Founder, President and CEO, For all Moonkind

Mai'a Davis Cross, Professor, Northeastern University

Ellen Gertsen, Deputy Associate Administrator, Office of Technology, Policy, and Strategy, NASA

Mike Gold, Chief Growth Officer, Redwire Space

This panel will address the challenges and opportunities in developing international heritage laws for the moon. Both domestic and international policies for access to celestial bodies and conservation of lunar sites will be analyzed, with particular emphasis on the One Small Step to Protect Human Heritage in Space Act and its relationship to the United Nations Outer Space Treaty.

12:05-1:55 p.m. Lunch, Networking, and Lab Tours

Lunch and intimate behind-the-scenes tours of the Mary Baker Engen Restoration Hangar will occur simultaneously. 2-2:50 p.m. Science

Reut Sorek-Abramovich, Co-Founder and CTO, Starstone Biomaterials

Ann Garrison Darrin, Principal Professional Staff, Johns Hopkins University Applied Physics Laboratory

Brett Denevi, Principal Staff Scientist, Johns Hopkins University Applied Physics Laboratory

Jeffrey Gillis-Davis, Research Professor, Washington University in St. Louis

This panel will focus on space-oriented research priorities and the balance between scientific data collection and preservation. Tensions between space sustainability, data gathering, and sampling removal will be discussed, with recommendations for responsible stewardship.

3-3:50 p.m. Engineering

Todd Mosher, Director, Formulation Team, Blue Origin

Erica Rodgers, Director of Advanced Programs, Office of Technology, Policy, and Strategy, NASA

David Korsmeyer, Deputy Center Director, NASA Ames Research Center

Brent Sherwood, Space Domain Lead, AIAA

Kevin Duda, *Program Manager, Space Systems, Draper Laboratory*

This panel will look at space heritage through the lens of the engineering challenges for lunar landing and space exploration. Panelists will describe engineering solutions and how they may impact developing international standards, including standards for preservation and research.

3:50-4:10 p.m. Afternoon Break

4:15-5 p.m. **Next Generation**

William Pomerantz, Head of Space Ventures, AeroVironment

Marchel Holle, U.S. Government Relations Lead, ispace

Owen Chbani, Policy Intern, Commercial Spaceflight Federation; President, Georgetown University Space Initiative

Audrey Scott, Chair, Students for the Exploration and Development of Space (SEDS-USA); incoming Graduate Student, University of Chicago

Matthew Daniels, Former Assistant Director of Space Security and Special Projects, White House Office of Science and Technology Policy; current Senior Advisor, U.S. Department of Defense

In our final panel we will consider innovations and investments compatible with the goals of the emerging international space economy. Panelists will contextualize the goals for future activities alongside priorities for technology, research, diplomacy, and preservation presented over the course of the summit.

5:05-5:25 p.m. Final Thoughts

Teasel Muir-Harmony, Curator, Space History Department, National Air and Space Museum, Smithsonian Institution

KEYNOTE

Thomas D. Jones, Ph.D., is a veteran NASA astronaut, scientist, author, pilot, and speaker. In more than eleven years with NASA, he flew on four Space Shuttle missions to Earth orbit. In 2001, Jones led three spacewalks to install the centerpiece of the International Space Station, the American Destiny laboratory. He has spent fifty-three days working and living in space.

A Distinguished Graduate of the Air Force Academy, Jones piloted B-52D strategic bombers, earned a doctorate in planetary sciences from the University of Arizona, studied asteroids and robotic exploration missions for NASA, and engineered intelligence-gathering systems for the CIA.

Jones is the author of seven space, aviation, and history books. Sky Walking: An Astronaut's Memoir was named by the Wall Street Journal as one if its "Five Best" books on space. His newest title is Space Shuttle Stories, published in 2023 by Smithsonian Books.

Jones' awards include the NASA Distinguished Service Medal, four NASA Space Flight Medals, the NASA Exceptional Service Award Medal, the NASA Outstanding Leadership Medal, the NASA Exceptional Public Service Award Medal, Phi Beta Kappa, the Air Force Commendation Medal, and Distinguished Eagle Scout. Asteroid 1082 TomJones is named in his honor. In 2018, Jones was inducted into the U.S. Astronaut Hall of Fame.

Jones served on the NASA Advisory Council and the boards of the Association of Space Explorers and the Astronauts Memorial Foundation. He consults on the future direction of human space exploration, uses of asteroid and space resources, and planetary defense. A frequent public speaker, he is often seen on-air delivering expert commentary on science and space flight.

www.AstronautTomJones.com



MODERATORS

Todd Mosher, Director, Formulation Team, Blue Origin

Mosher is a Director at Blue Origin, leading a multidisciplinary engineering and business team formulating future space systems using an innovative agile methodology. He has 35 years of technical engineering and program management experience working on robotic spacecraft and human spaceflight programs. He is a member of the AIAA Board of Trustees.

Teasel Muir-Harmony, Curator, National Air and Space Museum, Smithsonian Institution

Muir-Harmony is a historian of science and technology and the curator of the Apollo Collection, which comprises over 2,000 artifacts related to the Apollo program, the Skylab program, and the Apollo-Soyuz Test Project. She is the author of *Operation Moonglow: A Political History of Project Apollo* (Basic Books, 2020) and *Apollo to the Moon: A History in 50 Objects* (National Geographic, 2018) and teaches in the Science, Technology, and International Affairs Program at Georgetown University.

William Pomerantz, Head of Space Ventures, AeroVironment

Pomerantz leads the new space business unit developing the Mars Sample Recovery Helicopters at AeroVironment. His past contributions to commercial space include Vice President for Special Projects and Employee #001 at Virgin Orbit, Vice President for Special Projects at Virgin Galactic, and Senior Director of Space Prizes at the XPRIZE Foundation. He cofounded the Brooke Owens and Patti Grace Smith Fellowship programs, and has served on the Federal Aviation Administration's Commercial Space Transportation Advisory Committee (COMSTAC) and the National Academies of Science and Engineering's Committee on Building a Better NASA Workforce.

David Reinecke, Foreign Affairs Officer, Office of Space Affairs, Bureau of Oceans and International Environmental and Scientific Affairs

Reinecke is a Foreign Affairs Officer at the U.S. State Department in the Office of Space Affairs in the Bureau of Oceans and International Environmental and Scientific Affairs. His current portfolio includes public outreach on the Artemis Accords and related issues of cislunar policy. He previously taught at Princeton University in the sociology and engineering departments.

Reut Sorek-Abramovich, Co-Founder and CTO, Starstone Biomaterials

Sorek-Abramovich is co-founder and CTO of Starstone Biomaterials. An astrobiologist by training, she is an international fellow of The Explorers Club and an active public advocate for sustainable space exploration. She is a former science advisor for the Weizmann Institute of Science, and a graduate of the International Space University, where she also served as previous chair of the Space Sciences program.