

As of 6-5-19

Registration

8:00 am - 7:00 pm

Student Registration

9:00 am - 6:00 pm

Morning Plenary

8:30 am - 9:45 am

Student Plenary

10:00 am - 10:45 am

10:00 am - 12:00 noon

Interstellar

10:00 am

10:40 am

11:10 am

11:30 am

LaunchPad

10:00 am

10:05 am

10:13 am

10:21 am

10:29 am

10:35 am

10:43 am

10:51 am

10:57 am

11:05 am

11:13 am

11:21 am

11:27 am

11:35 am

11:43 am

11:51 am

Saturday, June 8

South Foyer

North 1

Commonwealth South

Panel: "Confessions from Apollo"

While many know the mission, engineering, and scientific details behind the Apollo Program, this panel discussion will focus primarily on the human aspects of the program.

Panelists: Al Worden, Apollo 15 Astronaut and Gerry Griffin, Apollo Flight Director Mission Control
Moderator: Dr. Anthony Paustian, Author of "A Quarter Million Steps" and Host of "A Step Beyond" on iHeartRadio

Presenting of NSS Space Pioneer Award to Al Worden

Presenting of NSS Space Pioneer Award to Gerry Griffin

Commonwealth South

Panel: "Celebrating 50 Years of Apollo"

This panel will address the primary aspects of the Apollo Program and what it took to land a man on the Moon in a short 8-1/2 years.

Panelists: Al Worden, Apollo 15 Astronaut and Gerry Griffin, Apollo Flight Director Mission Control
Moderator: Dr. Anthony Paustian, Author of "A Quarter Million Steps" and Host of "A Step Beyond" on iHeartRadio

Morning Sessions

Concourse 1

Introduction to Tau Zero Foundation, Q-Drive Initiative. Jeff Greason (Tau Zero Foundation)

Making Antimatter Propulsion Matter. Dr. Gerald Jackson (Hbar Technologies)

Student Missions to ELEO, ISS, Moon, Mars, and Beyond! Melissa Pore, Kayvon Samadani and Thomas Howard (Bishop O'Connell High School, Arlington, VA)

Advanced Carbide Nuclear Thermal Propulsion Fuel. Wesley Deason (UltraSafe Nuclear Corporation)

Concourse 2

Introduction. Dr. Shawna Pandya (Curator, ISDC LaunchPad)

Drones for Earth, Moon and Mars Exploration. Dr. Pascal Lee (NASA Ames)

Swarms for In-Space Assembly of Large Structures. Rahul Rughani (University of Southern California)

Extravehicular Activities & Cave Diving: The Next Generation of Human Development & Exploration of Space Stephen Daire (Protean GIST Solutions)

Q&A

Better Life Support Sooner Please. Douglas Gage (XPM Technologies)

Construction Prototyping and Design Development for an Autonomously 3D-Printed ISRU Surface Habitat. Melodie Yashar (Space Exploration Architecture)

Q&A

Enabling Sustainable Human Life in Space with Artificial Intelligence. Dr. Natalie Rens (Astreaia)

EDEN: Extraterrestrial Distributed Ecoculture Network. Alexander Sullivan (University of Southern California)

Solaris: Mega-scale Space Infrastructure and Becoming a Type I Civilization. Phillip Crume (Crume Industries)

Q&A

Pre-flight Medical Screening and Assessment in the Sub-Orbital Spaceflight Participant. Lauren Church and Eleanor Frost (Paraboladies)

Space Can Save the Earth. Howard Bloom (Space Development Steering Committee)

NSS's new book: "Space 2.0." Rod Pyle (Ad Astra Magazine)

Closing Remarks. Dr. Shawna Pandya (Curator, ISDC LaunchPad)

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Saturday, June 8

<p>Living In Space</p> <p>10:00 am</p> <p>10:30 am</p> <p>10:45 am</p> <p>11:15 am</p> <p>Moon</p> <p>10:00 am</p> <p>10:20 am</p> <p>10:40 am</p> <p>11:00 am</p> <p>11:20 am</p> <p>11:40 am</p>	<p>North 2</p> <p>Is Damaging Radiation in Deep Space the Great Phantom Menace to Our Big Plans? Dr. Bill Gardiner (NSS Space Health and Medicine Committee)</p> <p>NSS Student Space Settlement Contest Presentation</p> <p>Tests of Human Tissue Responses to Countermeasures to Damaging Radiation in Deep Space. Dr. Christopher Porada (Institute for Regenerative Medicine, Wake Forest University)</p> <p>The Case for Space: How the Revolution in Spaceflight Opens Up a Future of Limitless Possibility. Dr. Robert Zubrin (The Mars Society)</p> <p>North 3</p> <p>International Alignment</p> <p>Lunar Activities Update. Dr. Bernard Foing (ESA)</p> <p>Vision for Lunar Exploration. Masaru Koga (JAXA)</p> <p>NSS Student Space Settlement Contest Presentation</p> <p>HHR-1 ECA Lunar Lander/Rover Mission Update. Sheelika Ravishankar (Team Indus)</p> <p>Mission to the Moon Update. Dr. Rolf Erdmann (PT Scientists)</p> <p>Q&A</p>
<p>Student spUN Debates</p> <p>11:00 am - 12:00 noon</p> <p>Lunch</p> <p>12:00 noon - 1:50 pm</p> <p>Teacher Session</p> <p>1:00 pm - 3:00 pm</p> <p>Student Poster Session</p> <p>1:30 pm - 3:30 pm</p>	<p>Stars 1&2 (16th floor)</p> <p>Debate Round 2. Resolved: Only the countries and companies who have a presence in space are responsible for solving the space debris problem.</p> <p>Commonwealth South</p> <p>"National Space Policy"</p> <p>Keynote Speaker: Dr. Scott Pace, Executive Secretary, National Space Council</p> <p>MC: Dr. Greg Autry, ISDC 2019 Conference Chair, University of Southern California Marshall School of Business and National Space Society Board of Directors</p> <p>Galaxy (16th floor)</p> <p>A Revolutionary Artificial Intelligence and Space Education Focus Group - A Demonstration for Teachers</p> <p>Cavalier</p> <p>NSS Space Settlement Contest posters on display with the student presenters.</p>
<p>2:00 pm - 5:00 pm</p> <p>Interstellar</p> <p>2:00 pm</p> <p>2:30 pm</p> <p>3:00 pm</p> <p>3:15 pm</p> <p>3:45 pm</p> <p>4:00 pm</p>	<p>Afternoon Sessions</p> <p>Concourse 1</p> <p>Sailbeam Update - Survey of "Self-Steering" Projectiles for Low-Divergence Matter-Beam Propulsion. Jeff Greason (Tau Zero Foundation)</p> <p>Long Range Habitatis, Mars and Beyond. Grant Anderson (Paragon Space Development Corporation)</p> <p>NSS Student Space Settlement Contest Presentation</p> <p>To the Stars: Science and Science Fiction in Interstellar Spaceflight. Jeffrey Morris (Future Dude Entertainment) and Rod Pyle (Ad Astra Magazine). Moderator: Karlton Johnson (National Space Society Board of Governors)</p> <p>NSS Student Space Settlement Contest Presentation</p> <p>Panel: How Science and Fact Conspire to Create Breakthroughs. Dr. Greg Matloff (New York City College of Technology), Jeffrey Morris (Future Dude Entertainment), Rod Pyle (Ad Astra Magazine), Dr. Gerald Jackson (Hbar Technologies), Grant Anderson (Paragon Space Development Corporation). Moderator: Jeff Greason (Tau Zero Foundation)</p>

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Living In Space

- 2:00 pm EDEN: Extraterrestrial Distributed Ecoculture Network. Alexander Sullivan (University of Southern California)
- 2:30 pm Ethical Considerations of Sending Humans Where the Known Dangers to the Crew Challenge the Presumed Benefits of the Missions. Jon Zaikowski (Columbia University)
- 3:00 pm Mars Analog Astronaut Training Missions: On Mission Biomedical Monitoring and Diet Effectiveness Evaluation. Dr. Susan Ip-Jewel (Mars Academy USA)
- 3:15 pm NASA's Red Risks for Human Health on a Mission to Mars and How We Are Addressing Them. Dr. Zarana Patel (Wyle Laboratories)
- 3:45 pm Our Start-up: I Helped Develop a New Way to Build Engines and Get To and From Space. Belladonna Stofiel (Stofiel Aerospace)
- 4:00 pm Panel Discussion: Risks to Human Health in Deep Space: Phantom Menace or Go Fast and Dig Deep? Dr. Christopher Porada (Institute for Regenerative Medicine), Dr. Zarana Patel (Baylor Medical School Translational Research Institute for Space Health), Jon Zaikowski (Columbia University), Dr. Robert Zubrin (The Mars Society). Moderator: Bill Gardiner (NSS Space Health and Medicine Committee)

North 2

Moon

- 2:00 pm An Update on the Power and Propulsion Element for the Gateway. Dr. Michele Gates (NASA)
- 2:10 pm Gateway Program Update. Rod Jones (NASA Johnson Space Center)
- 2:20 pm Technology Demonstration Missions for the Moon. Dayna Ise (NASA)
- 2:30 pm ANTAEUS: Sample Receiving Lab/Planetary Quarantine Facility at the GATEWAY. Dr. Marc Cohen (Astrotecure Inc.)
- 2:40 pm USC ADAM Project 2018: Recommendations for Quick Lunar Return. Madhu Thangavelu (University of Southern California)
- 2:50 pm NSS Student Space Settlement Contest Presentation
- Architecture and Engineering**
- 3:00 pm Stability of Lunar Lava Tubes as Permanent Extraterrestrial Habitats. Dr. Anahita Modiriasari (Purdue University)
- 3:10 pm Ice-Rich Lava Tubes on Earth: Implications for the Moon and Mars. Dr. Pascal Lee (Mars Institute)
- 3:20 pm PERISCOPE: PERIapsis Subsurface Cave Optical Explorer. Jeff Nosanov (Nosanov Consulting)
- 3:30 pm Lunar Lava Tube Exploration and Exploitation Panel. Jeff Nosanov (Nosanov Consulting, LLC), Michael Dunn (4th Planet Logistics Inc.), Dan Hendrickson (Astrobotic Technology), Dr. Andrew Horchler (Astrobotic Technology), Dr. Pascal Lee (Mars Institute), Dr. Anahita Modiriasari (Purdue University). Moderator: Madhu Thangavelu (University of Southern California)
- 4:00 pm Lunar ISRU and Design and Sizing of Regolith Excavation & Handling Hardware. Dr. Paul van Susante (Michigan Technological University)
- 4:10 pm Lunar Landing Blast Effects and Construction of Landing Pads. Dr. Philip Metzger (University of Central Florida)
- 4:20 pm ASCE Resources and Standards Workshop. Dr. Paul Van Susante (Michigan Technological University), Dr. Behrokh Khoshnevis (University of Southern California), Dr. Haym Benaroya (Rutgers University), Peter Kokh (Moon Society), John C. Mankins (Moon Village Association), Jim Plaxco (National Space Society), Dr. Marc Cohen (Astrotecure Inc.), Dr. Pascal Lee (Mars Institute), Dr. Margaret Race (SETI Institute). Moderator: Dr. Philip Metzger (University of Central Florida)

North 3

Lunar Gateway Program by NASA

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Saturday, June 8

<p>Space Elevators</p> <p>2:00 pm</p> <p>2:10 pm</p> <p>3:00 pm</p> <p>3:15 pm</p> <p>3:30 pm</p> <p>3:45 pm</p> <p>4:00 pm</p> <p>4:40 pm</p> <p>Space Ambassadors</p> <p>2:00 pm</p> <p>2:10 pm</p> <p>2:40 pm</p> <p>3:10 pm</p> <p>3:40 pm</p> <p>4:10 pm</p> <p>4:20 pm</p>	<p>Concourse 2</p> <p>Space Elevators are Closer Than You Think. Peter Swan (International Space Elevator Consortium)</p> <p>Space Elevators, Apollo, and Back to the Moon. Jerome Pearson (Star Technology and Research)</p> <p>NSS Student Space Settlement Contest Presentation</p> <p>Pathway to Technological Maturity and Beyond. Michael Fitzgerald (Galactic Harbour Associates)</p> <p>Space Elevator Support for Interplanetary Flight. James Torla (Arizona State University) and Peter Swan (International Space Elevator Consortium)</p> <p>Tether Material and the Climber Interface. Peter Robinson (International Space Elevator Consortium)</p> <p>Panel: Space Elevator Interplanetary Mission Support through Collaboration by Many. Moderator: Michael Fitzgerald (Galactic Harbour Associates)</p> <p>The Future is Exciting for Space Elevators. Peter Swan (International Space Elevator Consortium)</p> <p>Mezzanine 3</p> <p>The Selling of Space - Space Ambassadors Making a Difference. Stevan Akerley (NSS Space Ambassadors Program Director)</p> <p>Robotic Space Settlement. Jim Plaxco (Chicago Society for Space Studies, Certified Space Ambassador)</p> <p>This Is Your Brain on Space. Loretta Hall (Author, Certified Space Ambassador)</p> <p>Lunar Science Base – With a Settlement Focus! Stevan Akerley (Certified Space Ambassador)</p> <p>The Moon, Asteroids, and Mars: The Future of Spaceflight. Ken Ruffin (Certified Space Ambassador)</p> <p>Recognition of other NSS Space Ambassadors, Presentations, and Subject Matter Expert Presentations. Stevan Akerley (NSS Space Ambassadors Program Director)</p> <p>Concluding Remarks and Q&A. Stevan Akerley (NSS Space Ambassadors Program Director)</p> <p>Commonwealth South</p> <p>Panel: "Finding Your Place in Space"</p> <p>Hear from executive-level experts about a future in the space-related career arena. Public, government and legal affairs are all needed in the space arena for the field to progress. Expand your knowledge of how the system works and where you may fit into the picture in a space-related career.</p> <p>Galaxy (16th floor)</p> <p>Final Debate Round. Resolved: Government policy is not necessary to grow and mature a self-sustainable cis-lunar economy.</p> <p>Boardroom</p> <p>Membership Benefits and Membership Levels meeting</p> <p>All members are invited to this focused discussion on current benefits, potential new benefits and membership levels. Bring your ideas.</p> <p>Mezzanine 3</p> <p>Space Settlers' Health Development</p> <p>Concourse 2</p> <p>Mars Special Interest Group (SIG) follow-up meeting</p> <p>Cavalier</p> <p>Come to the fabulous "Japanese Space Showcase" and experience Japanese-themed art, costumes, live music and topped off with a manga art show!</p> <p>Sponsored by ASTRAX (International Space Services).</p> <p>Assembly Foyer</p> <p>The Scott Maclaren Memorial Apollo Items Auction to Benefit NSS Education programs</p>
<p>Student NextGen Program</p> <p>3:30 pm - 5:00 pm</p>	
<p>Student spUN Debates</p> <p>3:30 pm - 4:30 pm</p>	
<p>NSS Meeting</p> <p>4:00 pm - 5:00 pm</p>	
<p>NSS Meeting</p> <p>5:00 pm - 5:45 pm</p>	
<p>NSS Meeting</p> <p>5:00 pm - 5:45 pm</p>	
<p>Showcase Event</p> <p>5:00 pm - 6:00 pm</p>	
<p>Silent Auction</p> <p>6:00 pm - 6:50 pm</p>	

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Cocktail Reception

6:00 pm - 7:00 pm

Gala Dinner

7:00 pm - 9:30 pm

Movie Screening

7:00 pm - 9:00 pm

Party

9:30 pm - Till

Assembly Foyer

Open reception includes a cash bar and appetizers.

Commonwealth Ballroom

"Space Solar: Are We There Yet?"

Keynote Speaker: Dr. Paul Jaffe, Electronics Engineer, Spacecraft Engineering Department/Space Electronics Systems Development, U.S. Naval Research Laboratory

Presenting of NSS Space Pioneer Award to Peter Wilhelm, Naval Center for Space Technology

Presenting of Student Space Settlement Contest Grand Prize Award

MC: Geoffrey Notkin, President, National Space Society and National Space Society Board of Governors

Gala Dinner Sponsored by SPACE Canada

Galaxy (16th floor)

ISDC Film Festival - "Chesley Bonestell: A Brush With the Future"

Introduced by Director Douglass M. Stewart, Jr.

Galaxy (16th floor)