

Space Policy Institute

THE GEORGE WASHINGTON UNIVERSITY

Spring 2019 Newsletter

Recent Events Highlights

First, we are very proud of our 6 space policy students who graduated this May with their M.A. in International Science and Technology Policy. The space policy graduates this spring were: James Alver, Jake Cooper, John Rowley, Gentoku Toyoma, Takuya Wakimoto, and Anna Wieger. We wish each of them the best of luck in their future endeavors.



Graduating International Science & Technology Policy students with Prof. Hertzfeld after graduation.

In January, the Space Policy Institute and the Elliott School Book Launch Series hosted a lunchtime discussion where Professor Emeritus Dr. John Logsdon discussed his research for his latest book *Ronald Reagan and the Space Frontier*.

This spring, several Space Policy Institute students, in cooperation with the Tokyo University of Agriculture and Technology (TUAT) in a multi-day meeting to discuss a number of space topics including

international cooperation and utilizing space technology for international development and economic growth. The students developed proposals on these topics at the Japan Aerospace Exploration Agency (JAXA) DC Office and then, with industry guests discussed each proposal in a panel discussion held by the International Student House, and co-organized by the Space Generation Advisory Council (SGAC) and JAXA.

In March, under our cooperative agreement with the Bocconi School of Management's Space Economic Evolution Lab, co-hosted (also with the Secure World Foundation) a conference in Milan, Italy on Lunar In-Situ Resource Utilization. Professor Hertzfeld spoke on a panel and several of our alumni including Dan Hendrickson, VP for Business Development at Astrobiotics Company, Peter Marquez of Andart Global, and Ian Christensen of SWF also participated on panels there.

At the end of March, two GW law students, James Lego and Chani Gatto with Prof. Hertzfeld as their advisor, represented GW at the North American Manfred Lachs International Space Law Moot Competition held at Georgetown Law School. In a field of 20 schools, they finished in second place and James Logo received the award for best oralist.

In May, the Space Policy Institute and the Embassy of Switzerland hosted an event celebrating "50 Years of Swiss-American Collaboration in Space Research" focused on the Swiss Solar Wind Experiment that was part of the Apollo 11 Moon landing mission. Presentations were from Dr. Jürg Meister, a

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Ph.D. student at the University of Bern in 1969 who participated in the solar wind experiment, Oliver Botta, Scientific Advisor at the Swiss Space Office, and Willy Benz, Professor and Director of the National Centre of Competence in Research PlanetS at the University of Bern.

Finally, toward the end of the semester we sponsored a talk by Dr. John B. Charles, NASA Emeritus and Scientist-in-Residence, Space Center Houston titled: From Here to Mars: How the Year-long ISS Mission and the Twins Study Moved Us Closer To the Red Planet. This lecture was part of the GW medical school's Human Health and Space class.

Faculty and Staff News

Professor Emeritus John M. Logsdon

continues to be very active in the space community and at SPI. As mentioned above, his latest book, *Ronald Reagan and the Space Frontier* (published by Palgrave Macmillan), has provided many opportunities for book talks, at the National Air and Space Museum, the Space Center, Houston, and the Space Symposium in Colorado Springs, among others. He is also a member of the Regulatory and Policy Committee, NASA Advisory Council.

In addition, the forthcoming 50th anniversary of the Apollo 11 moon landing has generated widespread interest and Prof. Logsdon has had many related media and speaking engagements including the ISU, ESA and the J.F. Kennedy Library. He has also contributed essays to *Aerospace America* (AIAA), and the Spanish newspaper, *El Mundo*. He has also Contributed introductory essay to anthology of space poetry, *Beyond Earth's Edge*, edited

by Chris Cokinos and Julie Swarstad Johnson, University of Arizona.

Professor Pascale Ehrenfreund is the President of the International Astronautical Federation (IAF). Among her many activities this year, she contributed to the success of the Global Conference On Space for Emerging Countries GLEC 2019, in Marrakesh, Morocco from 24 to 26 April 2019.

In February 2019 Pascale Ehrenfreund has lectured at the International Space University, where she also serves as Chancellor. In 2019 she published several peer-reviewed papers in the journals "Astronomy and Astrophysics" and "Frontiers in Microbiology".

She also attended "The Humans to Mars Summit 2019", hosted by the National Academy of Sciences, and participated in the panel on "Mars Insight Mission Updates".

Adjunct Professor Peter Hays has been busy this semester participating in and presenting at several meetings and conferences. Dr. Hays spoke on "The Evolution of Military Space Doctrine and the Space Force Debate" at the Lawrence Livermore National Laboratory and on "Space Policy Issues for the United States and Japan" for the Japan Ministry of Foreign Affairs Executive Program, both in January. He also presented on "Space and Missile Defense" for the Center for Strategic and International Studies (CSIS) here in Washington in March, and most recently presented on "Spacepower Policy" at Maxwell AFB in May. Dr. Hays was also a participant in the Keplerian Chess Game and the Future Military Missions: Space Workshop in February, and the Space Security Index Working Group and Governance Group meetings in May, among several others.

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Adjunct Professor Dr. John. J. Klein recently published the book *Understanding Space Strategy: The Art of War in Space* (Routledge, 2019), and he discussed many of the book's key findings and policy recommendations to senior U.S. Air Force leadership at the Space Horizons Symposium in Maxwell Air Force Base.

Student News

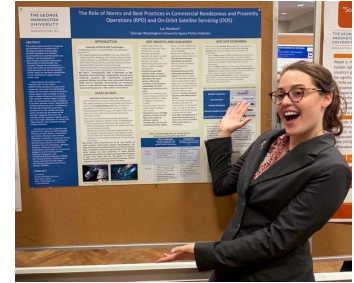
Over the winter break, four Space Policy Institute students participated in the KAKEHASHI Project, which had a space policy theme this year. They visited Japan for a week, and met with government and business leaders, visited the Japan Aerospace Exploration Agency (JAXA), Mitsubishi Heavy Industries, and the Space Law Institute at Keio University, a homestay with Japanese families, and explored the culture of Japan. Back in Washington, the students met with Science Counselor Shimasaki of the Embassy of Japan to discuss U.S.-Japan collaboration and encouraging partnerships between the government and the private sector.

This semester we were again able to offer the Introduction to Human Health in Space course. It is now taught by Dr. Claudia Ranniger of the George Washington University Department of Emergency Medicine and Dr. Mark Shelhamer of the Johns Hopkins University. The course, which was well received by students, was designed as an interdisciplinary course in aerospace medicine concepts for SPI and other students interested in human spaceflight.

In April, SPI graduate student Luc Riesbeck presented a research poster at GW Research Days, which won First Prize in the International Education and Cultural Studies

category. Luc's research was on *The Role of Norms and Best Practices in Commercial Rendezvous and Proximity Operations (RPO) and On-Orbit Satellite Servicing (OOS)*. It will be presented as a research paper at this year's IAC here in Washington.

Graduate Student Luc Riesbeck with the First Prize research poster at GW Research Days.



Several students were involved in this year's Space Security Index report and presented their research at the Working Group and Governance Group meetings at the McGill University Institute of Air and Space Law of in Montreal this May. Those students were Cheikh Faye, Drew Garza, Renata Knittel Kommel, and Luc Riesbeck. SPI student Takuya Wakimoto also completed research for the SSI report.

During the Spring 2019 semester, students held internships and jobs in many different companies and government agencies. These included the Department of Defense, Satellite Industry Association, The Aerospace Corporation, Bryce Space and Technology, Booz Allen Hamilton, Nanoracks, the American Institute of Physics, and many others.

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Message From the Director



Prof. Henry Hertzfeld,
Director, Space Policy
institute

We had a very busy and productive semester. In addition to the 9 students who enrolled last August, we added another 4 to our roster this spring. Our classes have gotten larger as the student population has grown and become very energized with all of the exciting happenings in space in the recent years.

Many public events were postponed or cancelled in January and February due to the government furlough. But, that was temporary and we are now back in full swing.

In addition to the events summarized above, the SPI supported the Humans to Mars event in May with both panelists and student volunteer help. We also have two events planned for this July, one a symposium in cooperation with the Aerospace Corporation on national security topics and another in association with the Smithsonian Air and Space Museum and the U.S. Department of State on July 18th at Lisner Auditorium celebrating the Apollo 11 moon landing.

I have been busy teaching the Space Law course as well as the Space Economics course. In addition I am attending the June Plenary Sessions of the UNCOPUOS in Vienna as a private sector advisor to the U.S. State Department Delegation. I am also a member of the ACCRES (the NOAA Remote Sensing Advisory Committee), which is reviewing the

Administration's recently released draft regulatory changes on remote sensing.

Finally, I have been quite busy doing research and writing on issues related to liability in space, planetary defense, and other regulatory issues.

We look forward to greeting our new students arriving in August and a number of events planned for September and October as well as the IAC here in Washington toward the end of October.

Supporters

Our efforts would not be possible without the generosity of our sponsors. We sincerely appreciate the continued support of the following partners:

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