#### THE GEORGE WASHINGTON UNIVERSITY

## **Spring 2021 Newsletter**

#### **Recent Events**

The Space Policy Institute continued virtually in the Spring and Summer of 2021 and will likely resume in-person operations starting August 2021. During the Spring 2021 semester, SPI organized a series of virtual events, and our faculty participated in a multitude of external events as featured speakers.

The Space Policy Institute was honored to host U.S. Army Gen. James Dickinson who is the Commander of United States Space Command (USSPACECOM), in a <u>webinar</u> moderated by SPI Adjunct Professor, John J. Klein. The discussion was focused on the important role of professional military education and training, along with how universities and industry can help develop space professionals.

In February, SPI director Dr. Scott Pace gave a talk for the GW Science and Technology Policy Society and kickstarted a new webinar series with the virtual event "Shaping S&T Policy: US & International Perspectives," also featuring Prof. Pascale Ehrenfreund.

In March, Dr. Pace and Dr. Logsdon were featured speakers of the NASA History Program Office Virtual Symposium: NASA and the Rise of Commercial Space. Also in March, SPI graduate students organized an event in collaboration with the Coalition for Deep Space Exploration, titled "The Policy and Careers Spacetalk," primarily oriented at current students and recent graduates. Dr. Pace was a featured speaker of the Atlantic Council's event "The Future of US Security in Space" in early April. Later in the month, SPI Director Henry Hertzfeld offered a virtual highlevel lecture on "Cooperation or Competition in Space: An Assessment of US and EU Models" at The Catholic University of Leuven, Belgium. SPI graduate student Tyler Way moderated a panel discussion on the topic "Space and Africa: **Developments and Cooperation.**"

Near the end of the Spring semester, SPI director Scott Pace moderated a webinar on the topic of "What Technologies Can Secure GPS?." The event featured a keynote address by Robert Hampshire, Acting Assistant Secretary for Research and Technology, U.S. Department of Transportation. The discussion included speakers from the U.S. Department of Transportation and academia.

## **Faculty and Staff News**

Professor Emeritus John M. Logsdon continues to bring visibility to SPI even though it has been more than a decade since he left the full-time faculty. His books on presidential space policy have been recognized as definitive. He continues to research and write; his article on space diplomacy appeared in the Spring issue of American Ambassadors' Review and he is working on a book dealing with policy toward human space exploration. During the past year, he lectured to U.S. and overseas groups ranging from GW's Society of the Emeriti to a class at the University of Colorado, students at the International Space University, the Swiss Youth Forum, and the fellows at the Keck Institute for Space Studies at the California Institute of Technology. He participated in a symposium on the history of commercialization organized by NASA and international commemoration of the anniversary of Yuri Gagarin's first human spaceflight organized by the International Astronautical Federation for the UN Committee on the Peaceful Uses of Outer Space. On that occasion, he was the only U.S. speaker on a panel that included veteran Russian cosmonaut Sergei Krikalev and European astronaut Thomas Reiter, plus representatives from China and Japan. Logsdon also continued to serve as a frequently cited expert source for the print and electronic media in the United States and internationally.

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Professor Dr. Pascale Ehrenfreund, in her role as President of the International Astronautical Federation IAF, organized the third edition of the Global Space Exploration Conference – GLEX 2021 in St. Petersburg, Russia. 800 participants from the space community gathered to discuss the progress of space exploration and to celebrate the 60th anniversary of Yuri Gagarin's spaceflight. Among them, 320 young professionals attended the Next Generation Day. The conference was held in conjunction with the International Astronauts Chapter and the participation of 16 international astronauts from the Association of Space Explorers.

In the Spring semester, Pascale Ehrenfreund has given Keynote talks at the European Space Conference, the 16th Ilan Ramon International Space Conference, the 43rd COSPAR Scientific Assembly, the Sustainable Space Logistics Digital Symposium at EPFL Space Center, the International Space University (ISU), the International Astronautical Federation Spring Meeting, and the International Women's Forum. Furthermore, she presented the Jean Dominique Cassini Medal Lecture virtually during the General Assembly of the European Geophysical Union 2021. Pascale Ehrenfreund contributed to several podcasts and webinars of SpaceWatch and moderated the IAF Symposium at UNCOPUOS STSC: "60 Years of Space Exploration: Looking Back and Looking Ahead". She is a member of the World Economic Forum Global Future Council on Space and serves as Chancellor of the International Space University.

Adjunct Professor Dr. Peter Hays recently published a chapter titled "What Should the Space Force Do? Insights from Spacepower Analogies, Doctrine, and Culture," in Cassandra Steer and Matthew Hersch, eds., War and Peace in Outer Space: Law, Policy, and Ethics (Oxford: Oxford University Press, 2020). In April, Professor Hays moderated a virtual panel on the merits and risks of space weapons in "Key Topics for a Renewed Space Weapons Debate" sponsored by Aerospace Corporation's Center for Space Policy and Strategy. Professor Hays continued to teach his course Science, Technology and National Security, through virtual learning at the Elliott School of

International Affairs, for graduate students in Science and Technology Policy and Security Studies.

Adjunct Professor Dr. John. J. Klein completed his spring undergraduate course "Space in International Affair" in a total virtual/online format with 30 students. During this period, he also supported several national security space wargames and responsible behaviors in space workshops. Patsy published the articles; "A Comprehensive Approach to Space Deterrence," Strategy Bridge, March 31, 2021, and "Some Lessons on Spacepower from Colin Gray," Naval War College Review, Winter 2021. He is currently working on the forthcoming chapter NewSpace and New Risks in Space Security, Oxford Handbook of Space Security, Oxford University Press.

#### **Student News**

During the Spring 2021 semester, space policy students held jobs and internships in many different government agencies and private companies. These included Intelsat, Amazon's Project Kuiper, The Aerospace Corporation, SpaceX, In-Q-tel, Smithsonian National Air & Space Museum, Booz Allen Hamilton, and House Committee for Science, Space, and Technology, among others.

We would like to congratulate graduating student Tyler Way, who was the leading author of a paper discussing the legal feasibility of active debris removal and was featured on the Aerospace Corporation's Space Policy Show on Active Debris Removal. Furthermore, Tyler hosted and moderated a panel of experts on the developments of space technology and policy in Africa. We extend our congratulations to graduate student Joshua Ingersoll, who recently started a new position at Amazon working on Project Kuiper as a Satellite Regulatory Engineer.

We are very proud of our space policy students who graduated this June with their M.A. in International Science and Technology Policy. The space policy graduates this spring were: Ross

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Hatley, John O'Donnell, and Tyler Way. We wish each of them the best of luck in their future endeavors.

### **Message From the Directors**



#### **Professor Dr. Scott Pace**

I rejoined the Space Policy Institute in January 2021 after 3.5 years at the National Space Council. I am thankful to the university for being more

than generous with their extended leave policy and to my colleague Henry Hertzfeld for his leadership of the Institute during my absence. We teamed up as co-directors this past semester but I'll inherit administrative responsibilities going forward. My first task this spring was to learn all the remote teaching tools that the university adopted last year. I taught my first graduate and undergraduate classes remotely and while the energy is not the same as an in-person class, there were advantages for working students and those living outside of DC.

We plan to return to in-person instruction this fall but this may include some classes in "hybrid" mode with remote instruction. We don't plan to go fully online, however, as so much of the SPI experience involves in-person interactions. We will reintroduce in-person events with remote support, such as seminars and workshops, as city and university regulations allow. Similarly, we will restart our participation in international events, such as the International Astronautical Federation meeting in Dubai as well as the annual meeting of the UN Committee on the Peaceful Uses of Outer Space.

I'm in the process of shifting back to public writing and had four small items published this spring. The first was an op-ed in *Politico* on private space stations, the second was an article (in Japanese) on space security for a Japanese railways magazine, the third was a co-authored tribute in *Aviation Week* to Patti Grace Smith, a pioneer in commercial

space transportation, and the fourth was an op-ed in *Space News* on space traffic management. In academic writing, I am working on a chapter on space security and international relations for a new Oxford Handbook on Space Security. Similarly, I've submitted a grant proposal on shaping the international environment for space sustainability.



In April, I had the pleasure of speaking (remotely) to the newest class of Matthew Isakowitz Fellows, a program named after a former SPI student. They are a bright and energetic bunch who will shape the future of the global space community.

At SPI, we're expecting a strong and large class of incoming space students this fall. 27 students have accepted admission to the masters' program and one in the certificate program. This is increasing the need for graduate fellowships in addition to what the university provides. If you or your company is

interested in creating a named fellowship for a deserving space policy student, please let me know!

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### Professor Dr. Henry Hertzfeld

I first want to congratulate and thank all of our students this past year. We have all, students and faculty alike, had to

radically adapt and change our methods of teaching, research, and learning. And I never heard a complaint from anyone. Of course, it was not the same as before, but we did accomplish a lot and our program is thriving as we look forward to this fall when we expect to return to more normal inperson events.

In addition to the events described elsewhere in this Newsletter, the one that stands out in my mind as very noteworthy is our participation in the Manfred Lachs Space Law Moot Court competition. This year, we again won the North American round of arguments and look forward to arguing against other teams from around the world this coming October at the IAC/IIS meetings in Dubai.

During the spring, I have participated in several symposiums. In February, I was on a panel sponsored by an organization in the UAE discussing the future economics of space. Also in February, I spoke at a space law conference in London on space resource mining; in March at Bocconi University in Milan, and in May on a panel on international affairs at the University of Pennsylvania.

I also was reappointed to a 2-year extension on ACCRES, the Advisory Committed to NOAA concerned with remote sensing regulatory affairs. And in June I was a member of the U.S. DOS delegation to the UNCOPUOS Legal Subcommittee meeting.

Finally, I have enjoyed the past four years as Director of SPI. Everyone at ESIA, in the Institute, and our sponsors have been supportive and engaged in our work. That has made my job easy and rewarding. I also want to give Christine Gilbert

a special mention. She has been the person who has made sure that everything that we have done relating to the ESIA and the University has gotten done and done properly.

I now look forward to continuing my work teaching and doing research at SPI as Scott returns to lead the Institute.

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