

12th EILENE M. GALLOWAY
SYMPOSIUM ON CRITICAL ISSUES
IN SPACE LAW

IMPLEMENTATION OF THE OUTER SPACE
TREATY: ISSUES FOR THE NEW U.S. NATIONAL
SPACE COUNCIL

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Report of the Eilene M. Galloway Symposium on Critical Issues in Space Law

*Danielle Miller**

The IISL Eilene Galloway Memorial Symposium on Critical Issues of Space Law took place at the Cosmos Club in Washington, D.C. on December 13, 2017. The opening was highlighted by a video welcome from Dr. Kai-Uwe Schrogl, President of IISL, and a presentation from Marcia Smith (Space Policy Online) about the life and work of Ms. Eilene Galloway.

The conference drew a remarkable team of speakers and panelists from government, academia, and industry. The format ranged from individual presentations to panel discussions. The conference was possible thanks to the generous support of the law firm Fish & Richardson, Secure World Foundation, Planetary Resources, the University of Nebraska College of Law's Space, Cyber and Telecommunications Law program, the American Institute of Astronautics and Aeronautics, Heinlein Prize-Trust, the American Astronautical Society and SpacePolicyOnline.com.

Congressman **Frank Lucas** of the 3rd Congressional District of Oklahoma and member of the Space Subcommittee of the Space Science and Technology Committee gave the morning's keynote address. Congressman Lucas outlined many of the legislative goals of the Subcommittee including resolving the issue of which administrative agency would have authority to authorize and supervise new space activities and the need to reform the regulatory process for authorizing remote sensing activities.

Next was a panel moderated by **Gabriel Swiney** (US Department of State) on the state of national legislation for new and traditional space activities. The panel started with a video presentation by **Steven Freeland** (Western Sydney University, Australia) on the status of Australian legislation and the

* Formerly with the National Strategic Research Institute and the University of Nebraska College of Law, currently in private practice.

formation of an Australian Space Authority. He shared his observations that space is becoming more of interest to the Australian government in large part because of private activity in the area, in addition to the usual national security concerns expected of a major power. **Val Sim** (Ministry of Business Innovation and Employment, New Zealand Government) provided a summary of the recent legislation in New Zealand for authorizing and supervising space activities such as new launch services. As a member of the Five-Eyes, New Zealand's position has always been that space must be kept safe for any space activities including military and private. This new legislation seeks to further codify that belief. **Mohamed Amara**, UAE Space Agency, explained how the UAE was developing its legislation to specify procedures, mechanism, and organizational standards of the space sector prior to anticipated launches in the next five years. Finally, **Brian Israel**, Planetary Resources, discussed the legislation that had been enacted in Luxembourg that creates a licensing and supervisory regime in Luxembourg to address the ownership of resources acquired in space, explicitly providing that those companies operating within its regulatory framework may legally appropriate resources acquired from near Earth objects. We are truly lucky at IISL to have such an incredible network of international legal talent who can share with us the developments in the space industry on a global scale.

Chris Johnson, Secure World Foundation, moderated the next panel on the establishment of norms and rules of behavior in space activities. NASA Goddard's **Ben Reed** initiated the discussion by outlining NASA's satellite servicing project. He suggested that the best solution to the servicing issue will be establishing norms of behavior through TCBMs and public-access televised servicing operations where interested parties can watch servicing operations take place in real time from cameras on the servicer. Such transparency would strongly deter poor behavior in servicing which will be necessary if satellite servicing is ever going to develop into the game-changing technology it has the potential to be. **Atilla Matas**, formerly of the ITU Radio Communication Bureau, outlined a proposal to provide uniform frequency allocation in a new ITU region 4 (in orbit and beyond) to resolve potential conflicts between nations as they engage in outer space activities. This goal, he reiterated, is to learn from the mistakes of the past as we move into an era of large-scale space participation by fifty, one hundred space-faring nations. **Don Jansky**, Jansky-Barmat Telecommunications closed the panel by discussing the preparations for the next World Administrative Radio Conference (WARC) and issues that need to be resolved such as frequencies and rules for bringing into use of large constellations. He reminded us that spectrum is a finite resource, and large constellations may cause problems beyond simple overcrowding of orbits as they will require their own spectrum channels, lest their overwhelming number crowd out the communications of

other satellites in orbit. Geographic separation won't be a factor in determining what spectrum these constellations will use, as they will be simultaneously operating in nearly every sector of the Earth's usable orbits.

Dr. **Scott Pace**, Executive Secretary, National Space Council, delivered the luncheon Keynote. Dr. Pace spoke about the topic on everyone's mind – the goals and objectives of the National Space Council. He noted that the President and Vice President (who chairs the Council) are personally interested in who will serve on the Council and that they expect the group to operate like the NAC, but across all space sectors. He discussed the underlying motivations for the group, including his own history working on space agreements and his belief that it is the responsibility of the United States to “arrive first” and bring American values to space frontier. He highlighted that, as always, dealing with space issues will require international effort especially on national security affairs, but that the goal of the Council is to support American ingenuity and commercial activities. He pointed out that the Council considers it of the utmost importance to deal with the space debris problem and suggested that payload and other review is a critical first step in attempting to mitigate the debris problem but didn't address particular plans to remediate the existing issue. Dr. Pace then proposed to the group that space is not a true “global commons,” or “common heritage of mankind,” and that such legal restraints are counterproductive. He said it is for the United States to promote its values in space not through the creation of international governing bodies, but through creating attractive projects and frameworks through which private actors can participate fully in space activities by our rules. Dr. Pace concluded his remarks by stating that it is his position and the position of the Council that the best way forward is to pursue non-binding “best practices” and confidence-building measures with international allies and minimizing domestic regulatory burdens on space actors. The goal of the Council is to build such a world with the help of Congress and industry.

In any discussion about governing space, it is critical to discuss to what extent military activity is to be constrained by such frameworks. **Daniel Porras**, United Nations Institute for Disarmament Research moderated a discussion between Professor **Jack Beard**, University of Nebraska College of Law, and Professor **David Koplow**, Georgetown University Law School on the law of armed conflict in space. The Professors discussed the application of the principles of general international law and the law of armed conflict to activities in outer space and the need for development of rules to avoid unintentional conflict. Professor Beard pointed out that “Codes of Conduct” are ineffective generally as controlling the behavior of states when their national security issues are in question. They considered whether, in this case,

“something” really is better than “nothing,” or if such clumsy attempts at consensus building are more counterproductive than helpful. Both Professors declared that nobody wishes to see a space environment full of military assets pointed at each other, but wondered how the law could prevent such a scenario absent international consensus which is unlikely. Rather, they said that it will be the role of existing laws governing warfare to make sure that war in space never occurs.

The afternoon keynote was delivered by **Jeffrey Manber**, NanoRacks. Mr. Manber explained how NanoRacks was developed in partnership with NASA and the issues that had to be resolved to make that partnership work. Mr. Manber also discussed Nanorack’s future initiative to develop facilities using launch vehicle upper stages. Mr. Manber distinguished between the roles of government and private sector in developing new space technology, declaring that while the private sector is certainly taking on more of the responsibility for operational governance in space, the government’s involvement is still critical because the markets aren’t mature enough yet to rely solely on new private investment. Government investment is still critical.

Then it was time to hear from industry. Professor Diane Howard from Embry Riddle led a panel discussion involving **Caryn Schenewerk**, SpaceX, **Karen Yasumura Cox**, Maxar Technologies and Prof. **Henry Herzfeld**, George Washington University. The discussion focused on need for regulatory reform for the licensing of launches and the licensing of remote sensing systems. Professor Herzfeld also discussed the need for revising how the U.S. registers space craft under the Outer Space Treaty and the Registration Convention. The speakers all reiterated the point they have been making for years, which is that no regulation is essentially regulations as the political risk imposed on the private ventures makes space investment more unattractive than it could be. Right now, they are relying on investment from individuals with high risk tolerances and personal (and emotional) stakes in the ventures. This is an unsustainable business model, and the speakers declared that a healthy (if not terribly burdensome) regulatory regime would assuage a great deal of the risk in the area and would support more robust growth moving forward.

Finally, a panel moderated by **Franceska Schroeder**, Fish & Richardson, gave us a rundown on current efforts by government agencies to regulate space activities. Speakers **Karl Kensinger**, FCC, **Sarah Heidema**, Department of State, **Sabrina Jawed**, FAA, and **Glenn Tallia**, NOAA explained their ever-growing mandates and how their different agencies are responding. The speakers expressed a willingness to consolidate governance of space activities but expressed concern that their individual issues must continue to be fully

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addressed in reviewing space activities. A space governance regime that effectively consider foreign policy, environmental, and national security concerns all from one place would be warmly received by the group. The speakers together expressed hope that a renewed focus on the issue would bring good ideas forward.

As always, IISL is thankful to the sponsors and organizers of the annual event. We are encouraged that so many bright, thoughtful people are contributing their expertise to these issues and that there is an ever-growing consensus of their importance. We thank our panelists and speakers for contributing their knowledge, and we thank the participants for their thoughtful questions and attendance at our event.

