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The Future of Space Governance

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CONFERENCE: THE FUTURE OF SPACE GOVERNANCE

Hosted by the Dean Rusk International Law Center and the Georgia Journal of International and Comparative Law on October 28, 2019 in Athens, Georgia

THE FUTURE OF SPACE GOVERNANCE

*Melissa J. Durkee**

The international legal framework governing outer space developed under the conditions of a bi-polar, Cold War world, where the United States and the Soviet Union were the only spacefaring nations, and were engaged in a feverish race to space.¹ The space treaties reflect the concerns of the time, primarily to prevent the militarization and colonization of outer space.² The two great powers wanted to keep the cold war out of space, and to keep that war from turning hot. Ultimately, the United States made it to the moon and the two nations moved on, leaving space governance effectively frozen in Cold War terms.³

Exactly half a century later, the world has changed, and so has space. A bi-polar world has become multipolar, and an optimistic period of multilateralism has given way to a decline in robust international cooperation. Meanwhile, developments in outer space have exploded in complexity, ambition, and commercial promise. The number of entrants and potential entrants has proliferated: at the time of this writing, seventy-two nations now claim they have space agencies, and fourteen have orbital launch capabilities.⁴ One of the key new entrants is China, which is busy exploring the dark side of the moon and plans a permanent Chinese lunar colony as early as 2030.⁵ India, too, is

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¹ See generally *Space Law Treaties and Principles*, UNITED NATIONS OFFICE FOR OUTER SPACE AFFAIRS, <http://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties.html> (last visited Apr. 19, 2020).

² *Id.*

³ *History.com Editors, The Space Race*, HISTORY.COM (Feb. 22, 2010), <https://www.history.com/topics/cold-war/space-race>.

⁴ Mai'a K. Davis Cross, *The Social Construction of the Space Race: Then and Now*, 95 INT'L AFF. 1403, 1403 (2019).

⁵ Rafi Letzter, *China Plans to Build a Moon Base*, WASH. POST (Apr. 13, 2019), https://www.washingtonpost.com/national/health-science/china-plans-to-build-a-moon-base/2019/04/26/d22406f2-6768-11e9-a1b6-b29b90efa879_story.html?arc404=true.

broadening its ambitions, planning an imminent moon lander trip, and manned spaceflight and a space station launch soon thereafter.⁶ The SpaceX program is making rocket launches available for bargain basement prices, bringing space activities within the reach of a gaggle of startups keen to grab their piece of the commercial pie.⁷ Other commercial actors imagine space tourism, colonies, and missions to Mars.⁸ At the same time, the United States, still the dominant player in space, has recently launched with fanfare a “Space Force,” aimed at defense of U.S. military interests from space.⁹

Fifty years after the first moonwalk, the prospect for a new set of multilateral agreements governing outer space is remote, yet the legal questions raised by activity in space are mounting. With little prospect of new treaties, nations will need to make do with existing treaty law, generate customary rules to govern new applications, or develop forms of sublegal understanding and cooperation.

This special conference issue of the *Georgia Journal of International and Comparative Law* addresses these questions headlong. The issue chronicles a conference on “The Future of Space Governance,” which the *Journal* convened in concert with the Dean Rusk International Law Center at the University of Georgia School of Law on October 28, 2019. The conference brought together a diverse array of experts to address emerging questions of outer space governance. It featured specialists from NASA and the U.S. Air Force, the private sector, and academic institutions and think tanks in the United States, Canada, Australia, and Africa. The conference invited participants to consider space governance from the perspective of the array of stakeholders who are its producers, consumers, advocates, reformers, or antagonists. It sought to understand the perspective and concerns of classic space powers, new entrants, and non-space faring nations, as well as civilian space agencies, national militaries, and commercial actors. It sought views on the sufficiency of existing law and governance structures, and probed the legal needs of new and existing stakeholders. Ultimately, the conference set out to explore the

⁶ Kai Schultz, *India Says It Has Located Chandrayaan-2 Lander on Moon's Surface*, N.Y. TIMES (Sept. 8, 2019), <https://www.nytimes.com/2019/09/08/world/asia/india-chandrayaan-2-lander-moon.html>.

⁷ See SPACE X, <https://www.spacex.com/> (last visited Apr. 19, 2020).

⁸ See, e.g., Elizabeth Culliford, *Branson's Virgin Galactic Takes Another Step Toward Space Tourism*, REUTERS (Feb. 22, 2019, 12:55 PM), <https://www.reuters.com/article/us-virgingalactic-rockets/bransons-virgin-galactic-takes-another-step-toward-space-tourism-idUSKCN1QB24P> (Virgin Galactic); Kenneth Chang, *Boeing Plans to Fly Tourists to Space*, N.Y. TIMES (Sept. 15, 2010), <https://www.nytimes.com/2010/09/16/science/space/16nasa.html> (Boeing); Valerie Stimac, *12 Space Tourism Companies That Will Send You to Space*, SPACE TOURISM GUIDE (July 22, 2019), <https://spacetourismguide.com/space-tourism-companies/> (others).

⁹ Press Release, President Donald J. Trump, President Donald J. Trump is Establishing America's Space Force (Feb. 19, 2019), available at <https://www.whitehouse.gov/briefings-statements/president-trump-establishing-americas-space-force/>.

various agendas of this growing collection of actors, and to understand the prospects for governance.

The six contributions the *Journal* editors feature in this volume both reflect and expand upon the engaging array of presentations at the conference. Cassandra Steer and Saadia Pekkanen offer contributions directing attention to the governance challenges presented by the entry of new spacefaring nations.¹⁰ Professor Pekkanen focuses on China and Japan, which are comparatively new entrants but also now well established. She finds that these nations “have to perform the balancing act between encouraging democratization, boosting commercialization, and containing militarization.”¹¹ Indeed, in Professor Pekkanen’s view, any new space governance instrument or institution must address these three core challenges.¹² Dr. Steer takes a critical perspective, drawing on feminist legal theory and Third World Perspectives on International Law (TMAIL) to observe that space governance has excluded important voices.¹³ Future governance exercises should be more inclusive, Dr. Steer proposes, because space activities are relevant to everyone, not just the citizens of spacefaring nations.¹⁴

Julia Selman Ayetey and Brian Israel offer a set of reflections on what norms govern, or should govern, potential commercial uses of outer space.¹⁵ Atayey offers an illuminating case study about intentional bad acts by a commercial actor to demonstrate how these actors have the potential to harm “the global commons that is outer space” by causing debris, collision risk, and other “chaos.”¹⁶ The solution, Atayey emphasizes, is “global standards of accountability” for these actors.¹⁷ Israel recognizes that it may be impossible to embed such standards or other governance norms in formal treaty law, and so turns his attention to other formats for meaningful governance.¹⁸ One promising candidate, he proposes, is blockchain technology, which could allow spacecraft operators to “make and enforce commitments” without reliance on national or international law, and thus “unlock new solutions to governance challenges inherent in the legal and physical attributes of the space domain.”¹⁹

¹⁰ Saadia M. Pekkanen, *Reflections on Space Governance by China and Japan*, 48 GA. J. INT’L & COMP. L. 731 (2020); Cassandra Steer, *Who Has the Power? A Critical Perspective on Space Governance and New Entrants to the Space Sector*, 48 GA. J. INT’L & COMP. L. 751 (2020).

¹¹ Pekkanen, *supra* note 10, at 731.

¹² *Id.*

¹³ Steer, *supra* note 10, at 752.

¹⁴ *Id.*

¹⁵ Julia Selman Ayetey, *In Support of Global Accountability for Private Commercial Space Actors*, 48 GA. J. INT’L & COMP. L. 761 (2020); Brian R. Israel, *Space Governance 3.0*, 48 GA. J. INT’L & COMP. L. 715 (2020).

¹⁶ Ayetey, *supra* note 15, at 765.

¹⁷ *Id.* at 761.

¹⁸ Israel, *supra* note 15, at 715.

¹⁹ *Id.*

Finally, Andrea Harrington and Joanne Irene Gabrynowicz round out the set with reflections on how traditional questions of space governance have evolved and will continue to do so.²⁰ Dr. Harrington focuses on security. She challenges the notion that the U.S. Space Force violates international legal norms, and suggests that, in addition to formal compliance with law, the Space Force may give rise to “increased level[s] of cooperation and an increase in security, both domestically and internationally”²¹ She then turns to a new “hot topic” in space security, which is mitigation of threats to the earth from asteroids or other Near Earth Objects²²—a far cry from the militarization concerns that animated the original space treaties. Professor Gabrynowicz, who offered the keynote at the conference, develops a broad temporal reflection on the international institutions that orchestrate space governance and the questions that animate it.²³ She identifies the work that lies ahead: The instruments of space governance must settle where exactly space begins, how lower and medium earth orbit will be governed, and, imminently, how humans may explore and use outer space.²⁴ What is less clear, Professor Gabrynowicz proposes, is what form this governance will take.²⁵ Perhaps we are at an inflection point, she suggests. Future commentators may look back to this moment to mark the dawn of a new era in space governance.²⁶

²⁰ Joanne Irene Gabrynowicz, *Some Legal Considerations Regarding the Future of Space Governance*, 48 GA. J. INT'L & COMP. L. 739 (2020); Andrea Harrington, *National and International Security in Space: International Law Implications of Space Force and Planetary Defense*, 48 GA. J. INT'L & COMP. L. 767 (2020).

²¹ Harrington, *supra* note 20, at 769.

²² *Id.* at 770.

²³ Gabrynowicz, *supra* note 20, at 739.

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*