The Fordham Environmental Law Review presents



The Environmental Implications of Space Tourism

March 10, 2022 | 10 a.m.- 2:10 p.m.

Fordham Law School

via Zoom Webinar

CLE COURSE MATERIALS



Table of Contents

- 1. Speaker Biographies (view in document)
- 2. CLE Materials

Environmental Law Review Symposium

Panel 1: Space Activities & The Law: Setting the Stage and the Current Legal Landscape and Panel 2: The Future of Space Regulation in an Ever-Evolving Commercialization of Space Course Materials Combined

Steven R. Freeland, Anne Sophie Martin. Back to the Moon and Beyond: Strengthening the Legal Framework for Protection of the Space Environment. Bond University Publications (view on web)

Steven Freeland. *The limits of law: challenges to the global governance of space activities.* UCLA Law Review (view on web)

Brianna Rauenzahn, Jasmine Wang, Jamison Chung, Peter Jacobs, Aaron Kaufman, Hannah Pugh. *Regulating Commercial Space Activity*. The Regulatory Review (view on web)

International and National Provisions of Space Law Regulating the Use of Outer Space. ResearchGate.com (view on web)

Senjuti Mallick, Rajeswari Pillai Rajagopalan. *If* space is 'the province of mankind', who owns its resources? Observer Research Foundation (view on web)

Long-term Sustainability of Outer Space Activities. United Nations Office for Outer Space Affairs (view on web)

Environmental Law Review Symposium Speaker Biographies

P.J. Blount

Adjunct Professor, LL.M. Program in Air and Space Law

Dr. P.J. Blount is an adjunct professor in the LL.M in the Air and Space Law at the University of Mississippi School of Law and a Visiting Scholar at the Beijing Institute of Technology School of Law for the Fall of 2017. He also teaches in the Department of Political Science and Law at Montclair State University. He is the former Research Counsel for the National Center for Remote Sensing, Air, and Space Law at the University of Mississippi School of Law. His teaching includes courses such Space Security Law,

International Telecommunications Law, Cyberlaw, International Law, Human Rights Law, Intellectual Property, and US Foreign Policy.

Blount's primary research areas are legal issues related to space security and cyberspace governance. He has published and presented widely on the topic of space security law and has given expert testimony on space traffic management before the U.S. House of Representatives Subcommittee on Space. Blount serves as the co-editor-in-chief of the Proceedings of the IISL; as the editor-in-chief of the Journal of Space Law; and as an editorial board member of the Journal of Astrosociology.

Additionally, he serves on the Board of Directors of the International Institute of Space Law and as the Chair of the Legal Aspects Technical Committee of the American Institute for Aeronautics and Astronautics. He is a member of the State Bar of Georgia.

Christopher J. Borgen

Professor of Law, Co-Director of the Center for International and Comparative Law
Christopher J. Borgen is Professor of Law and

Co-Director of the Center for International and Comparative Law at St. John's University School of Law. From 2009 to 2014 he was also the Associate Dean for International Studies for the Law School. Professor Borgen teaches, or has taught, International Law, National Security and the Law, International Finance, the International Law Colloquium, the Law of the European Union, the Seminar on States and Sovereignty, and Contracts, among other courses.

Professor Borgen is the co-founder of Opinio Juris, a website devoted to discussion, debate, and reports concerning international law.

Professor Borgen's current research focuses on secession and on how "great powers" use of international law as a diplomatic tool in international crises. He is the principal author of Thawing a Frozen Conflict: Legal Aspects of the Separatist Crisis in Moldova, a report issued by the New York City Bar as a result of a mission to Moldova. The report has been the subject of conferences convened under the auspices of the United Nations, the Parliament of Moldova, and the Woodrow Wilson International Center for Scholars. He has written widely on the topics of selfdetermination, secession, the recognition of states, international dispute resolution, and other topics in international law and national security law.

In 2018 Professor Borgen completed his work as Co-Rapporteur for the International Law Association's Committee on Recognition and Non-Recognition in International Law. The Committee had been established by the Executive Council of the International Law Association with the purpose of examining "whether contemporary issues of secession, break-up of States and the creation of new

States have changed international law and policy with respect to recognition."

A past Co-Chair of the American Society of International Law's Space Law Interest Group, in 2018 Professor Borgen was also named a "core expert" for a proposed "Manual on the International Law of Military Space

Operations," colloquially known as "The Woomera Manual." Following on previous multinational manual projects concerning the laws applicable to naval warfare, air and missile warfare, and cyber-operations, this project brings together international lawyers and technical experts from around the world to develop a model manual that will objectively articulate and clarify existing international law applicable to military space operations.

While at St. John's, he has also served as the Chairperson of the United Nations Committee of the New York City Bar, on the Executive Council of the American Society of International Law and as a member of the European Affairs and the Foreign and Comparative Law Committees of the New York City Bar.

Prior to joining the faculty at St. John's,
Professor Borgen was the Director of Research
and Outreach at the American Society of
International Law, a non-partisan membership
organization and think tank. At the ASIL, he
was responsible for defining research areas
and implementing public outreach programs as
well as specialized programs for the judiciary
and the media.

Professor Borgen began his legal career as a law clerk to Federal Magistrate Judge Arlene R. Lindsay of the United States District Court for the Eastern District of New York. He later spent three years as an associate with the Manhattan law firm of Debevoise & Plimpton, practicing in both the litigation and international corporate groups. Professor

Borgen has also served as an international trade consultant in Hungary.

Professor Borgen has received of the Order of Civic Merit, the highest honor awarded to a civilian by the Republic of Moldova, for his work on the ongoing separatist conflict.

Kimberly E. Diamond Adjunct Professor of Law

Kim Diamond is a recognized leader in the legal, energy, and environmental communities and is a thought leader in renewable energy, smart cities, and energy policy areas.

Within the American Bar Association's (ABA's) Section of Environment, Energy & Resources, she served as Co-Chair of the award-winning Renewable, Alternative, and Distributed Energy Resources (RADER) Committee as well as Co-Chair of the Special Committee on Congressional Relations. Ms. Diamond has also served as Chair of the Tri-State Area Chapter of Women of Renewable Industries and Sustainable Energy (f/k/a Women of Wind Energy) and as a Wind Energy Ambassador for the Wind Energy Foundation.

On a personal level, Ms. Diamond was recognized on A Word About Wind's Legal Power List 2016 as one of the Top 100 lawyers working in wind globally. She was also recognized as a 2014 finalist for a Clean Energy Education & Empowerment Award (C3E Award) for leadership and achievement from the U.S. Department of Energy and the MIT Energy Initiative.

Ms. Diamond has also spearheaded award-winning initiatives in her local community. In 2018, she led her local environmental commission to win an Association of New Jersey Environmental Commissions (ANJEC) Award for the thin film plastics recycling program she leads. Most recently, in 2019, she led the sustainability-focused non-profit that

she founded to win the 2019 New Jersey Clean Communities Council's Volunteer Award.

With respect to legal scholarship and presentations, she has participated as a speaker or moderator in over 30 presentations on finance, environmental, wind, and other renewable energy topics. Venues at which she has presented include Columbia Law School, Columbia Business School, the British Embassy, and the American Wind Energy Association's WINDPOWER Conferences.

She has also published over 30 articles on offshore wind, onshore wind, solar power, smart cities, green building climate change, finance, and other renewable energy topics. Her articles have appeared in prestigious law reviews, journals and trade publications. The United States Court of Appeals, Seventh Circuit, among other places, has cited her scholarship. Additionally, the first legal textbook of its kind on renewable energy law, Renewable Energy Law, Policy and Practice (Troy A. Rule, 2018), includes a selection from one of her most recent law review articles on wind rights and wake effect impacts.

Ms. Diamond is also a transactional lawyer with a background in securitization, structured finance, and secured lending. She has worked at large international and national law firms, representing domestic and international commercial banks, financial institutions, asset managers, funds, sponsors, large corporations, and others in numerous complex multi-million and multi-billion dollar CMBS, ABS, and RMBS securitizations, as well as structured finance, leveraged finance, and other complex financing transactions (including CLOs) in the public and private markets, both domestically and internationally. She has also served as in-house counsel at Credit Suisse, a global investment bank, where she covered the Fixed Income desk.

Additionally, Ms. Diamond possesses practical experience teaching law students outside of the classroom. In addition to her teaching experience at Fordham Law School, she has mentored teams of law students from NYU Law School's Law and Social Entrepreneurship Association in the representation of small business owners from Rising Tide Capital's entrepreneurs program for start-up companies.

Steven Freeland

Emeritus Professor of International Law at Western Sydney University

Steven Freeland is Emeritus Professor of International Law at Western Sydney University, where he was previously the Dean of the School of Law, and Professorial Fellow at Bond University. He also holds Visiting or Adjunct positions at various other Universities/Institutes in Copenhagen, Vienna, Toulouse, Hong Kong, Montreal, Kuala Lumpur, Vancouver, Mumbai and London. Prior to becoming an academic, he had a 20-year career as an international commercial lawyer and an investment banker. He is a governmentappointed Member of the Australian Space Agency Advisory Board and has been an advisor to the Australian, New Zealand, Norwegian and several other Governments on issues relating to national space legislative frameworks and policy. He has represented the Australian Government at Committee on the Peaceful Uses of Outer Space (UNCOPUOS) meetings and, in June 2021, was appointed by UNCOPUOS as Vice-Chair of a 5-year Working Group addressing issues related to the exploration, exploitation and utilization of space resources. He has also been a Visiting Professional within the Appeals Chamber at the International Criminal Court, and a Special Advisor to the Danish Foreign Ministry in matters related to the International Criminal Court. He is a co-Principal of specialized space law firm Azimuth Advisory and is also a Director of the International Institute of Space Law, a Member of the Space Law Committee of the International Law Association and a Member of the Space Law and War Crimes Committees of the International Bar Association. In addition to co-Editing the Annotated Leading Cases of International Criminal Tribunals book series, he also sits on the Editorial Board / Advisory Board of several internationally recognized academic journals.

Joanne Gabrynowicz

Professor Emerita, Director Emerita, Journal of Space Law Editor-in-Chief Emerita

Prof. Gabrynowicz has been teaching space law and remote sensing law since 1987 and was the Editor-in-Chief of the Journal of Space Law for 12 years. She was Research Professor and Director of the National Center for Remote Sensing, Air, and Space Law of the University of Mississippi School of Law (2001 - 2013) and Professor of Space Studies and Director of Graduate Studies at the Space Studies Department of the University of North Dakota (1987 - 2001). She currently lectures at various universities including the University of Vienna, the University of Warsaw, the Beijing Institute of Technology School of Law, the China University of Political Science and Law, the Beihang University (Beijing University of Aeronautics and Astronautics), and, EUSPACE Summer School Law and Technology, University of Genoa.

Prof. Gabrynowicz recently served on The National Geospatial Advisory Committee, a Federal Advisory Committee sponsored by the Department of the Interior under the Federal Advisory Committee Act; the NASA Advisory Committee Planetary Protection Subcommittee; the U.S. Department of Commerce National Oceanic and Atmospheric Administration's Advisory Committee on Commercial Remote Sensing; and, the National Academies of Sciences, Engineering and Medicine Review and Assessment of Planetary Protection Policy Development Processes.

She is a Director of the International Institute of Space Law (IISL)

(http://iislweb.org/index.html) and the Chaired its Publications Committee. Prof. Gabrynowicz serves as an official observer for the IISL to the UN Committee on the Peaceful Uses of Outer Space Legal Subcommittee (http://www.unoosa.org/oosa/en/COPUOS/ Legal/index.html). She was a member of the IISL delegation to the Unidroit Committee of Governmental Experts for the Preparation of a Draft Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Space Assets and a delegate to the Group on Earth Observations (http://earthobservations.org/index.shtml). Prof. Gabrynowicz is also a member of the International Law Association Space Law Committee. She is a member of the Space Policy Editorial Board.

The UN Office of Outer Space Affairs invited Prof. Gabrynowicz to lecture on U.S. and international space law at all of its capacity building workshops for government officials and policymakers from new and emerging space capable nations

(http://www.unoosa.org/oosa/en/SpaceLaw/workshops/index.html). She briefed U.S. Secretary of the Interior Gayle Norton as part of the Secretary's preparation for the Earth Observation Summit

(http://www.publicaffairs.noaa.gov/releases2 003/jul03/noaa03091.html). Prof. Gabrynowicz also briefed Deputy Assistant Secretary Frank A. Rose of the U.S. Department of State on the legal aspects of orbital debris.

Prof. Gabrynowicz was invited to serve as an expert member of the Permanent Court of Arbitration Advisory Group of Legal Experts on Optional Rules for Arbitration for Disputes Relating to Outer Space, The Hague (http://www.pca-cpa.org/shownews.asp?ac=view&nws_id=323

<u>cpa.org/shownews.asp?ac=view&nws_id=323</u> <u>&pag_id=1261</u>). She previously served on the National Academy of Sciences Study on Assessment of NASA's Orbital Debris Programs

(http://sites.nationalacademies.org/deps/ase b/deps_059556); the Eisenhower Institute study, The Future of Space-the Next Strategic Frontier

(http://www.eisenhowerinstitute.org/events/past_events/old_events/112403SSWG.dot); and, was the organizer and chair of the Dept. of the Interior's Federal Advisory Committee for the National Satellite Land Remote Sensing Data Archive

(http://eros.usgs.gov/archive/nslrsda/advisory/index.html).

Prof. Gabrynowicz was the principle organizer and developer of the Eilene M. Galloway Critical Issues in Space Law Symposia from 2006 to 2012

(http://www.spacelaw.olemiss.edu/events/no table/galloway.html). She was a founding faculty member of the Space Studies Department at the University of North Dakota, where she also served as its Director of Graduate Studies

(http://www.space.edu/home/history.aspx).S he taught traditional campus classes, on two U.S. Air Force bases, and, starting in 1995, via distance learning technologies. Her students include civilians, government, and industry aerospace professionals, and officers of the Air Combat, Air Mobility, and Space Commands. In 1999, she developed and taught a live, realtime, interactive Internet seminar, Landsat 7 Live: Past, Present, and Future that coincided with the satellite's launch. Speakers were the principals responsible for directing Landsat 7's science, technology, operations, and commercial activities. From 1992-94, Prof. Gabrynowicz was a member of The Congress of the United States Office of Technology Assessment Earth Observations Advisory Panel. From 1994-96, she was a member of the National Research Council Committee that produced Bits of Power: Issues in Global

Access to Scientific Data (http://sites.nationalacademies.org/DEPS/AS EB/DEPS_059556). In 1994-95, Prof. Gabrynowicz was awarded a NASA/American Society of Engineering Education Summer Faculty Fellowship from Goddard Space Flight Center where she also served as the 1997 Dean of the NASA Space Academy. In 1996 she received a research fellowship from the USGS EROS Data Center. In 1999, the International Institute of Space Law invited Prof. Gabrynowicz to write and present the remote sensing law position paper at the Third UN Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III http://www.iislweb.org/html/20130721_ne ws.html). In 2000, she was invited by the National Research Council (NRC) to participate in a study on Diplomacy in a Transparent World: The Use of Civil Remote Sensing in the Development and Implementation of Foreign Policy. In 2003, the NRC asked Prof. Gabrynowicz to testify before the Committee on Licensing Geographic Data and Services and the Stepping Stones to the Future of Space Workshop on International Cooperation/Competition- Why, How, When? She was also asked to address the NASA Public Health Applications Program on Confidentiality and Geospatial Data. In 2001, Prof. Gabrynowicz was invited by the American Institute of Aeronautics and Astronautics to participate in the working group on Contribution of Space Systems to the Development, Implementation and Verification of International Environmental Agreements. She was invited by the University of Cologne Institute of Air and Space Law and the German Aerospace Center to serve as an expert for Project 2001, which produced, Legal Framework for the Commercial Use of Outer Space Working Group on Remote Sensing.

Before beginning her academic career in 1987, Prof. Gabrynowicz was the managing attorney of a law firm in New York City. She is a member of the American Bar Association (ABA), Forum on Aviation and Space Law, the New York State Bar, and the IISL, among other groups. In 2008 Prof. Gabrynowicz was profiled in the ABA Journal article Making Space Matter

(http://www.abajournal.com/magazine/article/making_space_matter/).

John Mensah

Lecturer at the University of Professional Studies Accra

Professor John Yeboah Mensah is a Lecturer at the University of Professional Studies Accra, teaching Public International Law and Jurisprudence. Prior to joining the UPSA Law School, John was appointed as a Dean's Fellow with a joint appointment at the Leitner Center for International Law and Justice and the Access to Justice Initiative at Fordham Law School. In this capacity as Dean's Fellow, John worked, inter alia, on initiatives to promote access to justice in civil matters and conferences to highlight the challenges facing low-income communities in addressing civil matters. At the Leitner Center, John researched legal issues on climate change in Africa and further worked as a Teaching Assistant in International Law, Human Rights, and Corporate and Social Responsibility.

Austin Murnane

Senior Legal Counsel, Blue Origin

Austin Murnane is a Senior Legal Counsel at Blue Origin. Prior to joining Blue, Austin was an associate at Latham & Watkins. He is a member of the International Institute of Space Law, the American Institute of Aeronautics and Astronautics, and the Lawyer-Pilots Bar Association. Since 2013, he has published and presented work on commercial spaceflight and space resource law in various forums. He is a former U.S. Marine, a graduate of the U.S. Naval Academy and Fordham University School of Law, and next month he will complete a Master of Science degree in Space

Resource Engineering from the Colorado School of Mines.

Rada Popova

Graduate, Law Faculty of the University of Vienna

Rada Popova is a graduate of the Law Faculty of the University of Vienna, did her Ph.D. at the University of Cologne and has been a research scholar at the Centre of Excellence at The Hague Academy of International law. She is currently the General Counsel of Isar Aerospace Technologies, the first fully privately funded developer of launchers in Europe. Previously, Rada worked as a Senior Research Fellow and Lecturer in Law at the University of Cologne. As a lawyer, she has provided expertise in various aerospacerelated projects with the European Space Agency, the German Aerospace Center and private industry in Germany, France, Italy and Spain and actively contributes to the work of the International Institute on Space Law and the International Law Association. She has published numerous journal articles and book chapters on the regulation of space activities and regularly lectures in universities in Europe and Asia.