

White Paper – Outer Space

STEERING COMMITTEE

MEMBERS

(by alphabetical order)

Setsuko AOKI, Olavo BITTENCOURT, Martha BRADLEY, Marco FERRAZZANI, Steven FREELAND, Ranjana KAUL, Sergio MARCHISIO, Steve MIRMINA, Olga VOLYNSKAYA.

Coordinators

Philippe ACHILLEAS

Professor at Paris Saclay University (France)

Stephan HOBE

Professor at Cologne University (Germany)

Assistant and Rapporteur

Hugo LOPEZ

PhD candidate at Paris Saclay University (France)

Setsuko AOKI

Dr. Stesuko Aoki is Professor of Law at Keio University Law School, Japan since April 2016. She specializes in public international law especially space law, arms control and export control. She obtained Doctor of Civil Law (D.C.L.) from McGill University, Montreal, Canada in June 1993.

She is a member of the Committee on the National Space Policy (CNSP), Cabinet Office of Japan since July 2012 and the chair of the security subcommittee of the CNSP since April 2017. She is a vice-president of the International Institute of Space Law (IISL) since October 2017. Her English articles published in 2021 include: “The Use of Force and Planetary Defense”, in Irmgard Marboe, (ed.), *Legal Aspects of Planetary Defense* (Brill/Nijhoff, 2021), pp. 209-225; “State Responsibility Facing the Growing Diversity of Space Projects and Actors: The Case of Satellite Deployment from an International Space Station”, in Maritetta Benkö and Kai-Uwe Schrogl (eds.), *Outer Space Future for Humankind* (Eleven, 2021), pp. 393-411.

Olavo BITTENCOURT

Professor at the Catholic University of Santos. Member of the Board of Directors of the International Institute of Space Law (IISL). Appointed by Brazil as Arbitrator for space related disputes at the Permanent Court of Arbitration. Co-vice chair of the Hague International Space Resources Governance Working Group. Delegate at the United Nations Committee on Peaceful Uses of Outer Space. Member of the Editorial Board of the *Journal of Air and Space Law*. Member of the International Institute of Space Law, the Brazilian Association of Air and Space Law and the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation. Recipient of the IISL Diederiks-Verschoor Award.

Martha BRADLEY

Dr Bradley holds an LLB, LLM in International Air and Space Law, and LLD in International Humanitarian Law and International Criminal Law from the University of Pretoria. She further holds an LLM in Shipping Law from the University of Cape Town. Dr Bradley is a Lecturer in the Department of Public Law at UP where she is course leader for both public international law at undergraduate level, and the LLM International Law coursework programme. Furthermore, Dr Bradley is the course coordinator for the International Humanitarian Law and Human Rights in Military Operations LLM Programme. Owing to her teaching innovations, Dr Bradley was her faculty’s nominee for the UP Teaching and Learning award in 2020.

Her research focuses on the law of non-international armed conflict and the legal classification of non-international armed conflict. Dr Bradley has published in leading discipline specific journals including the Yearbook of International Humanitarian Law and the International Review of the Red Cross. Dr Bradley has a keen interest in Space Law, specifically the militarization of outer space and completed her LLM in International Air and Space Law under the supervision of Professor Doctor Stephan Hobe. In 2021 Dr Bradley was selected to join the prestigious DHET Future Professors Programme. She serves as an External Expert: Centre for International Humanitarian and Operational Law, Faculty of Law, Palacký University, Czech Republic, and on the editorial board of the Pretoria University Law Press. Dr Bradley is a recipient of the University of Johannesburg's 2019 Postdoctoral Research Fellows Excellence Award.

Marco FERRAZZANI

Marco Ferrazzani is the Chief Legal Counsel at the European Space Agency, based at its headquarters in Paris, France. His broad policy and advisory work encompasses legally structured instruments for the funding of European space programmes and in-space operations, as well as providing a full range of advice in public, private and financial law. As ESA Legal Counsel, he is advisor to the ESA Director General and manages an international team of lawyers qualified in all areas relevant to space programmes, including interpretation of the ESA Convention, regulations, national legislation, as well as legal, policy and regulatory instruments to develop the space sector. Marco Ferrazzani has led numerous ESA negotiations of international space agreements, advising on landmark space projects in cooperation with governments and institutions such as NASA and other space agencies and operators. He has been acting in space advocacy and representing European sector interests at international conferences such as IAC, UNIDROIT or UNCOPUOS.

Marco Ferrazzani holds a doctorate of jurisprudence from the University of Naples and attended postgraduate law courses at Harvard and Georgetown Universities. He has authored over 100 conference and journal publications and is regularly invited to take part in panel discussions and give academic lectures on the laws applicable to outer space. He is a Board Member of the European Centre for Space Law (ECSL), of the International Institute of Space Law (IISL) and for the German Journal of Air and Space Law.

He has been awarded the honorific title of Cavaliere (Knight) by the President of the Italian Republic. He speaks English, French, Italian and Spanish.

Steven FREELAND

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 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 government-appointed 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 utilisation 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 specialised 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 recognised academic journals.

Ranjana KAUL

Dr. Ranjana Kaul is Partner in Dua Associates, a leading law firm in India. She specializes and provides advisory on international space law frameworks and its intersections with Indian space policy and regulations, within the context of other national laws. Dr Kaul is member, Board of Directors,

International Institute of Space Law, Paris; affiliate of the Space & Satellite Professional International (India) and Women in Aviation International (India). She is widely published and an invited speaker at academic institutions and at restricted forums. Dr. Kaul holds an LLM from the Institute of Air & Space Law, Faculty of Law, McGill University, Canada; Doctorate from University of Poona and Bachelors in Law degree from the University of Delhi in India.

Sergio MARCHISIO

Full Professor of International Law and Space Law at Sapienza University of Rome. Member of the Board of Directors of the Italian Space Agency (2014-18). Since 1997, Delegate to the United Nations Committee on the Peaceful Uses of Outer Space and Chairman of the Legal Subcommittee (2004-06). Since 2007, Chairman of the European Centre for Space Law at ESA. Honorary Member of the Board of Directors of the International Institute of Space Law and of the Advisory Council of the European Space Policy Institute. In 2012, appointed member of the Group of Governmental Experts on Transparency and Confidence-building Measures in outer space (UNGA Res. 65/68). In July 2015, Chair of the New York Multilateral Negotiations on the Code of Conduct on Outer Space Activities. In 2016, Since 2019, General Counsel of International Astronautical Federation (IAF). Lecturer at The Hague Academy of International Law with a course on "The Outer Space Activities between Public and Private Law". In 2018, nominated member of the Group of Governmental Experts on further effective measures for the prevention of an arms race in outer space (UNGA Res. 72/250). He is the author of around 200 publications in International Law, Space Law, Law of International Organizations and European Union Law.

Steve MIRMINA

For more than two decades, Steve Mirmina has worked as an attorney at NASA in the International Law division of the Office of the General Counsel. He has helped negotiate and conclude more than 1,000 international agreements for missions ranging from human space flight and Mars exploration, to Earth science missions and aeronautics research. Before joining NASA, he practiced Aviation Law with the law firm of Crowell & Moring. Steve has LL.M. degrees from Leiden University (The Netherlands) and Georgetown (Washington, DC). He received his Juris Doctor from the University of Connecticut (UCONN) School of Law and his B.A. from Brandeis University (Boston). Outside of work, Steve has taught Space Law at the Law Schools of Georgetown, UCONN, and Yale. He has spoken widely and has authored numerous articles in the fields of international air and space law. He has received awards from both NASA and the White House for his exceptional and distinguished service. When he's not working or teaching, he is probably playing with his two sons.

Olga VOLYNSKAYA

Dr. Olga Volynskaya is a qualified international lawyer specializing in international space law with 12 years of practical and academic experience. She studied law at the Russian Foreign Trade Academy (*magna cum laude*), Moscow State Institute of International Relations (*magna cum laude*) and European Centre for Space Law. Until 2017 Dr. Volynskaya was Chief International Law Advisor of the Russian Space Agency (ROSCOSMOS). In 2017-2020 served as Second Secretary at the Russian Ministry of Foreign Affairs, Legal Department.

Since 2021 Dr. Volynskaya has been Assistant Professor of the Space Research Department, Lomonosov Moscow State University. The areas of expertise include international space law, environmental law, law of the sea, polar law. Author of 70 scientific publications on international law, international space law and foreign trade. Lectured on space law and policy in universities of France, Germany, Japan, the Netherlands, Russia and South Africa. Corresponding Member of the Tsiolkovsky Russian Academy of Cosmonautics, member of the International Institute of Space Law.

ASSISTANT/RAPPORTEUR

Hugo LOPEZ

Hugo Lopez is PhD candidate at Paris Saclay University and Executive secretary of the *Institut du droit de l'espace et des télécommunications* (Idest). His research focus on the legal framework of scientific activities of States and on international law related to areas beyond national jurisdictions (Antarctica, outer space and

oceans). M. Lopez gives seminars in international law and European union law at Paris I Panthéon-Sorbonne, Paris Saclay and Paris Nanterre.

Hugo Lopez holds a master in space and telecommunications law and in international and European law from Paris Saclay University. He previously practiced in international nuclear law, space law and aviation law in a law firm and in public institutions.