



2019, 2020, 2021 ANNUAL REPORT OF THE MCGILL INSTITUTE OF AIR AND SPACE LAW

prepared by

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Despite the hurdles caused by the Covid-19 pandemic, the McGill Institute of Air and Space Law (IASL) is pleased to report three research-intensive and productive years in the fields of air and space law. With the launch of several new research projects, webinar series and other academic events, with the completion of the largest trust fund ever provided to an academic institution for research in space law (Erin J. C. Arsenault Trust Fund), and with the continuous attraction of a diverse and international student body, the IASL remains the world's most renowned and active academic institution in air and space law.

During this period, Prof. Brian Havel served as the IASL's Director, while during his medical leave Prof. Ram Jakhu served as Acting Director starting in the Summer of 2020. IASL doctoral candidate Ms. Maria Manoli was appointed as IASL's Executive Director in August 2021. Mr. Kuan-Wei (David) Chen remained the Executive Director of the McGill Centre for Research in Air and Space Law (CRASL) and Ms. Maria D'Amico remained the Institute's Senior Administrative Coordinator. Shakeel Ahmad was IASL's postdoctoral fellow. Dr. Donal Hanley joined the IASL as Adjunct Professor in 2019, while Prof. Ram Jakhu was promoted to Full Professor in 2021.

Our flagship publication, the Annals of Air and Space Law continued with the publication of the following volumes:

- ➤ Annals of Air & Space Law Volume XLIV (Montreal: CRASL, 2019).
- ➤ Annals of Air & Space Law Volume XLV (Montreal: CRASL, 2020).

The following activities and research projects are highlighted for the purposes of this report:

1. NEW IASL PROJECTS

i. McGill Encyclopedia of International Space Law

Under the direction of Prof. Ram Jakhu, the project was announced in November 2020 and has since then attracted the participation of 28 scholars and professionals in space, forming an international team with members from 18 different countries. The purpose of the project is to produce an objective source on the most importance topics in the field of international space law, containing peer-reviewed scholarship. In recognition of this unique and first-of-its kind research endeavour, the McGill Encyclopedia Project received considerable funding from the Social Sciences and Humanities Research Council (SSHRC), the Government of Canada's funding agency that supports cutting-edge research and promotes the dissemination of transformational knowledge. A webpage dedicated to the project has been created and can be accessed at http://www.spacelawpedia.com/.

ii. Air Line Emergency Restrictions Tracker (ALERT) Portal

Inspired by the travel restrictions imposed by the Covid-19 pandemic, the IASL launched an Air Line Emergency Restrictions Tracker (ALERT), an interactive portal that tracks restrictions on travel and other Covid-19-related health rules, thus providing travellers with useful information. Under the direction of Prof. Brian Havel and based on the idea of DCL student Upasana Dasgupta, the portal was launched mid-2020 as a free public service.

iii. IASL Research Project on Space-Related Disputes

In October 2019, the IASL launched a research project on space-related disputes with the support of Prof. Ram Jakhu. The research team consists of Eytan Tepper, Viva Dadwal and Alexandre Israel and the following papers have been presented in the context of the project:

- V. Dadwal & E. Tepper, "Arbitration in Space-related Disputes: a Survey of Industry Practices and Future Needs", 70th International Astronautical Congress (IAC), International Institute of Space Law (IISL), 62nd IISL Colloquium on the Law of Outer Space, Washington D.C., 21-25 October 2019.
- V. Dadwal & M. Macdonald, "Arbitration of Space-related Disputes: Case Trends and Analyses", 71st International Astronautical Congress (IAC) CyberSpace Edition, International Institute of Space Law (IISL), 62nd IISL Colloquium on the Law of Outer Space, IISL Young Scholars Session, 12-14 October 2020.
- 3. C. Rosenberg & V. Dadwal, "The 10 Year Anniversary of the PCA Outer Space Rules: A Failed Mission or The Next Generation?," Kluwer Arbitration Blog, 16 February 2021.

4. V. Dadwal & C. Rosenberg, "Looking to the Past for the Future: International Investment Law as a Framework to Protect Private Actors in Outer Space," ITA in Review, Volume 3, Issue 3, 3 February 2022.

2. <u>PROGRESS ON EXISTING PROJECTS</u>

MILAMOS – Progress and presentation at the United Nations

The project to draft the McGill Manual on International Law Applicable to Military Uses of Outer Space (MILAMOS or McGill Manual) is scheduled to be completed by the end of 2022 and will be the world's first manual clarifying international law applicable to the military uses of outer space during peacetime. In December 2021, the MILAMOS Editorial Committee met for a seventh and last time, while the efforts to engage with government officials and other interested stakeholders are still ongoing. Under the direction of Prof. Ram Jakhu, over fifty rules will be produced by the completion of the project relying solely on primary and official sources. Each rule is undergoing a double peer-reviewed process by experts such as former Judge of the International Court of Justice Judge Abdul Koroma, President Emerita of the International Institute of Space Law Professor Tanja Masson-Zwaan, and Cdr. (Ret'd) Guy Philips of the Royal Military College of Canada, Professor Timiebi Aganaba of Arizona State University, Dr. Ranjana Kaul of Dua Associates, Prof. Sergio Marchisio of Sapienza University of Rome, Prof. Ludwig Weber of McGill University, and Prof. Dr. Bernhard Schmidt-Tedd of German Aerospace Center DLR. Each rule will be accompanied by a detailed and evidence-based commentary which is also subject to a stringent peer review process. In September 2019, the MILAMOS project was presented at the United Nations/Turkey/APSCO Conference on Space Law and Policy that took place in Turkey. Several experts involved in the project presented on the purpose and progress of the McGill Manual, which was positively received by the conference participants and characterised as a reference work in the field.

3. CONFERENCES, WEBINARS, AND OTHER ACADEMIC EVENTS

i. IASL Colloquiums continue

- In February 2019, the IASL held its first colloquium in air and space law for the year under the theme "Decarbonizing Aviation: The Why and the How" and under the direction of Prof. Brian Havel. Dr, Martin Carmes of the German Institute for Applied Ecology, Dr. Joris Melkert of the Faculty of Aerospace Engineering of TU Delft, and Dr. Christ Malins of renewable energy consultancy firm Cerulogy participated in the colloquium.
- In March 2019, the colloquium series continued with Capt. Aysha Al-Hameli, the Permanent Representative of the United Arab Emirates on ICAO's Council. Capt. Al-

Hameli shared her professional experience in the field of aviation with a full audience and provided mentorship to interested IASL students.

- In September 2019, the colloquium series continued with Mr. Eamonn Brennan, Director-General of Eurocontrol.

ii. Qatar Airways/McGill Intramural Air Law Speed Moot Court Competition

Collaboration between Qatar Airways and the IASL continued in 2019 with the joint air law speed moot court competition, which was judged by experts in air law, including senior ICAO officials. IASL LLM students Ms. Polly Averns and Ms. Nivedita Raju, won the competition.

iii. Qatar Airways/ McGill Rising Scholars in Air and Space Law Conference

In March 2019, in collaboration with Qatar Airways, the IASL held the inaugural <u>Qatar Airways/McGill Rising Scholars in Air and Space Law Conference</u>. This new annual conference is designed to showcase the scholarly research being pursued by current Certificate, LLM and DCL, students and Postdoctoral fellows. The theme of the Conference was "Air and Space Law: Key Issues for the 2020s", with panels chaired by IASL and McGill Faculty of Law faculty members, as well as by aviation professionals from Qatar Airways under the direction of Senior Vice President Aeropolitical and Corporate Affairs Mr. Fathi Atti.

iv. Strategic Space Law Course

The McGill Annual Strategic Space Law Course continued in 2019, 2020, and 2021 with successful participation and in collaboration with IASL graduate, Mr. Gilles Doucet of Spectrum Space Security, Inc., Canada. Subject-matter experts including, Prof. Roy Balleste Stetson University College of Law, United States), Dr. Stuart Eves (SJE Space Ltd., United Kingdom), Prof. Steven Freeland (Western Sydney University, Australia), Maj. Brian Green, Ms. Deborah Housen-Couriel, Prof. Ram Jakhu (McGill University, Canada), Ms. Donna Lawler (Azimuth Advisory, Australia), Ms. Elina Morozova (INTERSPUTNIK), Dr. Eligar Sadeh (Astroconsulting International LLC, United States), Dr. Brian Weeden (Secure World Foundation, United States), and Dr. Jessica West (Project Ploughshares, Canada), took part as lecturers. In 2020 and 2021, the Course took place virtually, and was attended by hundreds of participants from across the globe

v. 12th McGill International Aviation Liability, Insurance and Finance Conference

As per tradition, in October 2019, the annual <u>McGill International Aviation Liability</u>, <u>Insurance and Finance Conference</u> attracted an impressive number of alumni and other attendees and hosted 12 expert panels. Institute Director Professor Brian Havel chaired a panel of four in-house counsel

with senior lawyers from Etihad Airways, Air France/KLM, Air Canada, and Cargojet, who together offered fascinating insights into issues relating to claims management and compliance with many safety, security and consumer protection regulations in the highly regulated aviation industry. As well as the panel on cargo, other new additions to the Conference panel line-up included a discussion of liability issues among officials affiliated with four big international aviation organisations (the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA), the International Federation of Airline Pilots Associations (IFALPA), and Airports Council International (ACI)) and a panel of rising aviation legal professionals organised under the initiative of IASL graduate Mr. Prithviraj Sharma. The latter panel, featuring junior air and space law professionals who are currently practitioners, pursuing doctoral studies, or employed at national and international regulatory bodies, gave recent IASL graduates the valuable opportunity to share their experience and perspectives on pursuing a career in these highly complex and competitive fields.

vi. IASL-IAASS Webinar Series

Under the direction of Prof. Ram Jakhu, the IASL successfully launched a new webinar series in July 2020 in collaboration with the International Association for the Advancement of Space Safety (IAASS). The series consisted of 4 episodes, was held online via Zoom, and attracted about 100 attendees per episode.

- 1. The first episode took place in July 2020. It addressed the topic: "Artemis Accords: Challenges and Opportunities" and hosted interventions by invited speakers Mr. Mike Gold (NASA), Prof. Ram Jakhu (McGill University), Mr. Gabriel Swiney (United States Department of State), Mr. Tommaso Sgobba (International Association for the Advancement of Space Safety), and Mr. André Farad (European Space Agency) and it was moderated by Prof. Steven Freeland (Western Sydney University).
- 2. The second episode took place in July 2020 and focused on the topic "The Quest for a Legal Frontier between Airspace and Outer Space" and hosted the presentation of two discussion papers on the topic by Ms. Maria Manoli (IASL) and by Mini Gupta (IAASS). Panellists included Prof. Steven Freeland (Western Sydney University), Mr. Tommaso Sgobba (IAASS), Prof. Stephan Hobe (Institute of Air Law, Space Law and Cyber Law, University of Cologne), and Prof. Liu Hao (Institute of Aviation Law and Standard, Beihang University). The episode was moderated by Dr. David Kendall (Former Chair, United Nations Committee on the Peaceful Uses of Outer Space), and introductory remarks made by Prof. Ram Jakhu.
- 3. The third episode took place in September 2020 and discussed a "Proposal for an Operational and Regulatory Framework to Ensure Space Debris Removal." Discussion papers were presented by IASL LLM student Kiran Vazhapully and Chris Kunstandter and the invited panellists included Mr. Josef Koller (The Aerospace Corporation), Prof. Steven Freeland (Western Sydney University), Prof. Ram Jakhu (McGill University),

- Dr. Joseph Pelton (former Dean, International Space University), Mr. Jason Forshaw (Astroscale), Ms. Isabelle Rongier (Ariane Group) and Mr. Tommaso Sgobba (IAASS). Dr. Lucy Stojak (School on Management of Creativity and Innovation, HEC Montréal) moderated the panel.
- 4. The fourth and last episode took place in December 2020 and discussed the topic "Constraints on Military Uses of Outer Space: What might International Law Offer?." Discussion papers were presented by Ambassador (retired) Paul Meyer (Simon Fraser University) and Ms. Elina Morozova (INTERSPUTNIK) and the panellists consisted of Prof. Steven Freeland (Western Sydney University), Prof. Ram Jakhu (McGill University), and Mr. Tommaso Sgobba (IAASS). The webinar we moderated by Dr. Rajeswari Pillai Rajagopalan (Observer Research Foundation).

vii. IASL Air Law Webinar Series: Law in a Rapidly Evolving Aviation Industry

In October 2021, the IASL launched its new webinar series in aviation law "Law in a Rapidly Evolving Aviation Industry" under the direction of Prof. Ram Jakhu and IASL doctoral candidate Ms. Maria Manoli. The webinar series were successfully launched and often attracted more than 100 participants.

- 1. The first episode took place in October 2021 and addressed the topic: "An Airline Bankruptcy Case Study and Aircraft Lease Restructurings and Repossessions." Invited speakers were experts Mr. Gautam Acharya (Jet Airways, India) and Dr. Donal P. Hanley (McGill University). The webinar was moderated by Ms. Maria Manoli and introductory remarks were made by Prof. Ram Jakhu.
- 2. The second episode took place in November 2021 on the topic "Aviation Industry after the B737 MAX Case." Dr. John Maris (Cert Center Canada) and Dr. Tommaso Sgobba (IAASS)were invited expert speakers, Mr. Bryan DeCouto (ICAO) served as commentator, Dr. Ludwig Weber (McGill University) as moderator, and Ms. Maria Manoli made the introductory remarks.
- **3.** The webinar series continued with three more episodes in 2022.

viii. The Sarin-McGill Annual Student Essay Contest on Aircraft Finance & Leasing

In May 2021, the partnership between McGill IASL and Sarin & Co (India) law firm continued with the second edition of the <u>Sarin-McGill Annual Student Essay Contest on Aircraft Finance and Leasing</u>. The essay topic of 2021 was on "Liability of Aircraft Lessors and Financiers under Private International Air Law" and the winner was Samaksh Khanna from Symbiosis Law School, Pune, India. The competition was first established in 2020 on the topic of "Force Majeure" and Aircraft Acquisition Contracts" and the winner was Nilay Raj from Symbiosis Law School, Pune, India.

4. <u>COLLABORATIONS – JOINT ACTION</u>

i. IASL/IFALPA Memorandum of Understanding

In March 2019, IASL signed a Memorandum of Understanding with the <u>International Federation of Airline Pilots' Associations</u> (IFALPA), the global airline pilots organization which represents over 100,000 pilots worldwide. MoU will offer IASL students and recent graduates internship opportunities in the legal, business, and administrative aspects of the aviation industry. Among other opportunities, the internship programme was intended to include the possibility of working with affiliated pilot unions of IFALPA.

ii. IASL participated in an Open Letter in Space as a Global Commons

In April 2020, an open letter signed by key Canadian figures in the field of space law, including former Chair of the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) Dr. David Kendall, and former Canadian Ambassador for Disarmament Ambassador (retired) Paul Meyer, was co-signed by Prof. Ram Jakhu. The letter came as a reaction to the United States' Executive Order on Encouraging International Support for the Recovery and Use of Space Resources and was addressed to the Minister of Foreign Affairs of Canada, Mr. François-Philippe Champagne.

iii. IASL participation in the Review of the Remote Sensing Space Systems Act continues

Recognising the expertise of the Institute of Air and Space Law in providing objective legal and policy advice to governments and industry stakeholders, the Institute was engaged by Global Affairs Canada (GAC) to provide independent reviews of the Canadian Remote Sensing Space Systems Act (RSSSA in both 2012 and 2017. Both of these independent reviews were conducted by Professor Ram Jakhu and colleagues, and provided much of the foundations for policy debates and the impetus for legislative reform.

Following the most recent review, GAC and the Institute co-hosted and convened a series of meetings of the Ad-Hoc Remote Sensing Space Systems Act Advisory Committee, with Mr. Kuan-Wei Chen acting as the co-chair of the Committee over the period November 2019-Octover 2021. The objective of the Advisory Committee was to draw on the knowledge and expertise of its members to critically review the Act, its Regulations and their implementation, with a view to proposing changes and actions that would ensure the regulatory framework is in line with emerging trends and developments in the industry.

The minutes and reports of the Ad-Hoc Advisory Committee can be accessed at https://www.mcgill.ca/iasl/rsssa

iv. IASL participation in Satcon-2 meeting

Prof. Ram Jakhu and LLM candidate Mr. Nishith Mishra participated as invited experts in a series of Satcon-2 meetings from May 2021 to mid-July 2021. The primary focus of Satcon-2 was to engage with the industry to come up with voluntary guidelines/participation from industry for mitigation of impacts. The participation of IASL in Satcon-2 meetings was concluded in October 2021 with the production of a report of the Policy Working Group which can be accessed at: https://noirlab.edu/public/products/techdocs/techdoc031/.

v. Collaboration with ALICANTO continues

In 2019, the IASL participated in the inaugural business meeting of ALICANTO, a non-profit corporation headquartered in Quebec. The aim of the corporation is to promote collaboration among universities with teaching and research programmes in aviation and aeronautics. Prof. Ram Jakhu and/or Ms. Maria Manoli represented IASL at its meetings and participated in its activities during 2019-2021.

vi. Involvement in the Montreal Protocol

In November 2019, three IASL alumni participated in the celebration of the entry into force of the *Montreal Protocol 2014*, the *Protocol to amend the Convention on Offences and Certain Other Acts Committed on Board Aircraft*. Dr. Jiefang Huang, Director of ICAO Legal Affairs and External Relations Bureau, Marla Weinstein, Legal Officer with the Legal Affairs and External Relations Bureau, and IASL graduate Mr. Prithviraj Sharma, Aviation Policy Advisor at the Nigerian Mission to ICAO, participated in the related ceremonies.

vii. International Air Law Course at the Law Faculty of the National University of Singapore

In September 2019, the IASL Director, Prof, Brian Havel delivered lectures at the Aviation Law course at the Law Faculty of the National University of Singapore as Visiting Professor of Law.

viii. IASL director Brian Havel chaired panels in prestigious conference

In September 2019, IASL Director, Prof. Brian Havel, chaired a panel on Canada's air transport access settings at the CAPA (Centre for Aviation) Canada Aviation Summit in Winnipeg.

5. <u>COMPLETION OF THE ERIN J. C. ARSENAULT SPONSORSHIP</u>

After twelve years of research in space law with several research projects, events, and student sponsorships, the Colorado-based Erin J. C. Arsenault Trust Fund was completed in 2021. The Fund sponsored 21 LLM students, 11 DCL students, and 11 Post-Doctoral Fellows from 20 different countries and helped IASL distinguish itself as leader in space law research worldwide by producing more than 60 space law specialists. During the 12-year period of the Trust Fund, the IASL organised over 60 conferences, workshops and academic meetings. Such events include the annual Manfred Lachs Conferences on Space Law and the annual Space Security Workshop in the context of the Space Security Index. The Fund also served as the main funding source for the worldwide renowned Global Space Governance Study and the MILAMOS Project, as well as for the McGill Encyclopedia of International Space Law. The Fund has also supported the publication of 16 books, monographs and major studies and over 250 paper presentations of IASL faculty and students at local and international academic conferences and other events.

6. OUR COMMUNITY AND SUCCESSES

i. IASL space law moot court team won North American Rounds of Manfred Lachs Space Law Moot Court Competition

Once more, the IASL won the North American Rounds of the Manfred Lachs Space Law Moot Court Competition, which took place in March 2019. The IASL team was composed of Ms. Polly Averns (England/Canada), Ms. Nivedita Raju (India), and Mr. Mike Bilodeau (New Zealand/Canada), and was coached by IASL doctoral candidate Mr. Aram Daniel Kerkonian, under the supervision of Prof. Ram Jakhu.

ii. A Wedding in our Institute

In October 2019, the wedding of IASL doctoral candidate Ms. Maria Manoli and former postdoctoral fellow with the Law Faculty, Dr. Lukas Vanhonnaeker, took place in the IASL building, marking the first wedding among Law Faculty and IASL students taking place in the IASL.

iii. Honorary Doctorate to Prof. Brian Havel

In December 2019, IASL Director, Prof. Brian Havel, received an Honorary Doctorate in Laws from the National University of Ireland.

iv. IATA O'Keefe Aviation Law Writing Award to IASL alumna

IASL graduate Isabella Vilhena won the 2020 Constance O'Keefe Aviation Law Writing Award by the International Air Transport Association.

v. Unprecedented alumnus success

In August 2021, alumnus Juan Carlos Salazar was elected as the Secretary General of ICAO, an impressive achievement for the IASL alumni body. He joined the LLM class of IASL in 1998 and, ever since, he has led a remarkable career in civil aviation, occupying key positions in multilateral transport negotiations, aviation management, and air transport policy in various locations, including Latin America and the Middle East. Before joining ICAO, he was the Director General of the Colombia Civil Aviation Authority. In the past, he has also served as a Senior Advisor to the United Arab Emirates Civil Aviation Authority and as president of the Latin American Civil Aviation Commission.

vi. Prof. Ram Jakhu promoted to Full Professor

In November 2021, Acting Director Prof. Ram Jakhu was promoted to Full Professor. After several years of service at McGill, Professor Jakhu has overseen the supervision of a large number of LLM and doctoral students and Postdoctoral fellows and the direction of a wide range of research projects in the field of international space law and the law of telecommunications.

vii. McGill IASL IAWA Scholarship recipients:

2019: LLM student Nivedita Raju (graduated).

2021: LLM student Olaoluwa 'Nifemi Awe (graduated).

2021: DCL candidate Maria Manoli (graduated).

7. <u>INSTITUTE'S GRADUATE STUDENT PROFILE AND EDUCATIONAL PROGRAMME</u>

During the academic year 2019-2020, the Institute welcomed a cohort of 19 students in its LLM, DCL, and certificate programmes that formed an impressively international group with students coming from Nigeria, Belgium, India, Italy, Russia, Colombia, Canada, Israel, Denmark, the United States, Austria, Ukraine, Iceland, and Singapore. 16 students were accepted in the LLM program, 2 students in the DCL programme, and 1 in the graduate certificate.

Despite the Covid-19 pandemic, the academic year 2020-2021 was equally successful in achieving a high student intake and an international student group. The Institute welcomed a total of 18 students, 12 in the LLM programme, 5 in the graduate certificate programme, and 2 in the DCL

program from Indonesia, Uganda, Canada, Nigeria, India, China, USA, Dominican Republic, France, and Austria.

The 2021-2022 cohort was composed of 17 new students from India, Canada, USA, Hong Kong, France, South Korea, Romania, Australia, Ukraine, and Austria. 12 students joined the LLM programme, 2 students joined the DCL programme, and 3 joined the graduate certificate. This year also welcomed back 5 returning LLM students, and 7 returning DCL students.

During these years, the Institute maintained its teaching curriculum with both compulsory and optional courses. The compulsory courses were: *Public International Air Law*, *Private International Air Law*, and *Space Law: General Principles*. Optional courses were: *Airline Business and Law*, *Government Regulation of Space Activities*, and *Comparative Air Law*. The IASL courses were taught by full-time faculty members (Prof. Brian Havel and Prof. Ram Jakhu), Adjunct Professors (Dr. Ludwig Weber, Dr. Paul Fitzgerald, Dr. Peter Nesgos, Dr. Donal Hanley, and Mr. Francis Schubert), and Sessional Lecturers (Dr. Yaw Nyampong, Dr. Joseph Wilson and Mr. David Kuan-Wei Chen). A series of guest lectures with invited experts in air and space law were also organised and took place in-person and virtually.

8. *PUBLICATIONS*

Authored/edited Books, Peer-reviewed, Book-Chapters and other Publications by IASL Faculty Members, Post-Doctoral Fellows, Graduate Students and Research Associates

(2019)

- 1. Annals of Air & Space Law Volume XLIV (Montreal: CRASL, 2019).
- 2. A. Agaba, "Transfer of Space Technology in the African Space Agency: Lessons from The European Space Agency and The National Aeronautics and Space Administration" (2018 [published in 2019]) 43 Annals Air and Space Law 253.
- 3. S. Dalledonne, "Distributor Ledger Technology in the Aviation Industry: Implementation and Benefits" (2019) 44 Annals of Air & Space Law 305-328.
- 4. V. Di Mei, "Foreign Investment Restrictions on Airports: From Ownership to Corporate Governance" (2019) 44 Annals of Air & Space Law 261-288.
- 5. P. Fitzgerald, "The Life and Death of a Treaty: Bermuda 2" (2019) 44 Annals of Air & Space Law 577-580 (book review).
- 6. S. Freeland & R. Jakhu, "Promoting Peace from Above? Utilising Space for the Prevention and Prosecution of Human Rights Violations" in Aram Kerkonian (ed.), *Global Space Governance and the UN 2030 Agenda*, VOL VI, (Montreal: CRASL, 2018 [appeared in 2019]) 21-31.
- 7. B. F. Havel, "Against Hortatory Language in Treaties: Lessons for International Law from the Battle over Article 17bis of the US-EU Air Transport Agreement" (2019) 44 Annals of Air & Space Law 1-64.
- 8. R. Jakhu, "Mapping Global Transformations," World Economic Forum Toplink, March

- 2019, online: WEF https://toplink.weforum.org/knowledge/insight/a1Gb000000pTDUEA2/explore/summary>.
- 9. R. S. Jakhu, "Rule of law vital for humanity's sustainability and survival" (2019) 4:22 ROOM: The Journal of Asgardia, 14-19.
- 10. R. S. Jakhu, "First Ever Space Crime? A Wakeup Call for Extra-Terrestrial Law" (September 2019) Lawyer Monthly, online: https://www.lawyer-monthly.com/2019/09/first-ever-space-crime-a-wakeup-call-for-extra-terrestrial-law/.
- 11. R. S. Jakhu, "Mapping Global Transformations," World Economic Forum (March 2019).
- 12. R. Jakhu, K.-W. Chen & B. Goswami, "Canada's leadership in dispelling the rhetoric of space war" (25 November 2019), op-ed, online: The Hill Times https://www.hilltimes.com/2019/11/25/canadas-leadership-in-dispelling-the-rhetoric-of-space-war/225349.
- 13. R. S. Jakhu & S. Freeland, "A Vital Artery or a Stent Needing Replacement? A Global Space Governance System Without the Outer Space Treaty?" in P.J. Blount, et al., *Proceedings of the International Institute of Space Law* (Eleven, 2018 [appeared in 2019]) 505-519.
- 14. R. S. Jakhu & A. D. Kerkonian, "Second Independent Review of Canada's Remote Sensing Space Systems Act" (2018/2019) 42 Journal of Space Law 1-37.
- 15. A. D. Kerkonian, ed., *Global Space Governance and the UN 2030 Agenda* (Montreal: CRASL, 2019), 272 pp.
- 16. A. Kerkonian: "Finally, a new Canadian space strategy but wait, what do we do with this?," opinion piece, SpaceQ (25 March 2019).
- 17. A. Kerkonian "The Legal Aspects of Permanent Human Settlement on Celestial Bodies" (2019) 44 Annals of Air and Space Law 415-480.
- 18. A. Kerkonian & R. Jakhu, "Second Independent Review of Canada's Remote Sensing Space Systems Act," (May 2019) 42 Journal of Space Law, 1-37.
- 19. G. D. Kyriakopoulos & M. Manoli, eds., *The Space Treaties at Crossroads: Considerations de Lege Ferenda* (Switzerland: Springer, 2019), 197 pp.
- 20. T. Linskaill, "Brexit's Implications for Air Traffic Rights and the Nationality Rule: A Critical Commentary" (2019) 44 Annals of Air & Space Law 65-104.
- 21. E. Napolitano, "Interdisciplinary Team Teaching in Space Legal Education" (2019) 44:1 Journal of Space Law 40.
- 22. E. Napolitano, "Space Mining: The Need for International Global Governance," in *Proceedings of the International Institute of Space Law Vol. 62* (Eleven: 2019) 35.
- 23. Y. Nyampong & R. S. Jakhu, "International Regulation of Emerging Modes of Space Transportation" in *Space Safety Regulations and Standards* (Elsevier, 2019).
- 24. E. Tepper, "Israel Florida Space Cooperation Agreement: A Hybrid Model of International Cooperation" (2019) Journal of Space Law.
- 25. L. Vanhonnaeker & M. Manoli, "The Interplay between Space Law and International

- Investment Law: Local Equity Requirements as a Model for Standards of Global Action in the Uses of Outer Space" in G. D. Kyriakopoulos & M. Manoli, eds., *The Space Treaties at Crossroads: Considerations de Lege Ferenda* (Switzerland: Springer, 2019) 49-64.
- 26. I. Vilhena, "The Cape Town Convention and the Aircraft Protocol: The Challenge of Achieving Compliance" (2019) 44 Annals of Air & Space Law 157-178.

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- 27. Annals of Air & Space Law Volume XLV (Montreal: CRASL, 2020).
- 28. S. Ahmad, "Dynamics of Customary International Law: Negotiation, Transformation and Codification" (2020) 5:2 Orient Research Journal of Social Sciences (ORJSS).
- 29. K.-W. Chen, "New Ways and Means to Strengthen the Responsible and Peaceful Use of Outer Space", (2020) 48 Georgia Journal of International and Comparative Law 661
- 30. K.-W. Chen, S. Freeland & R. Jakhu, "OPINION: Renewed hopes for humanity in space" (30 November 2020), online: The Hill Times: https://www.hilltimes.com/2020/11/30/renewed-hopes-for-humanity-in-space/273155.
- 31. K.-W. Chen, R. Jakhu & S. Freeland, "The Subjects of International Space Law" in P. J. Blount, et al., *Proceedings of the International Institute of Space Law* (Eleven, 2019 [appeared in 2020]).
- 32. V. Di Mei, "Conflict of Law Issues on Property Rights in the Regime of Aircraft Financial Leasing" (2020) 8 Commentary on Air Law 80-97 (publication in Chinese).
- 33. P. Fitzgerald, "The Future of Commercial Aviation in a Post COVID-19 World" (2020) 45 Annals of Air & Space Law 429-448.
- 34. R. S. Jakhu, K.-W. Chen & B. Goswami, "Threats to Peaceful Uses of Outer Space: Politics and Law" (2020) 18:1 *Astropolitics* 22–50.
- 35. R. S. Jakhu, J. N. Pelton & N. Mishra, "Rules of the Road' for Launch and Operation of Small Satellites and Related Issues" in J. Pelton, ed., *Handbook of Small Satellites* (Switzerland: Springer, 2020), 1417-1445.
- 36. R. S. Jakhu, U. Dasgupta & S. Freeland, "Back to the Future: Space Law in a Networked World", in *Proceedings of the International Institute of Space Law Vol. 63* (Netherlands: Eleven, 2020) 443.
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