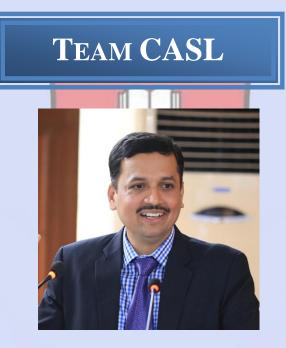
CASL Newsletter 2023

The Centre of Aviation and Space Laws (CASL) of the West Bengal National University of Juridical Sciences, Kolkata, is an academic centre created under the aegis of Prof. (Dr.) Sandeepa Bhat B. and Dr. Shouvik Kumar Guha. The Centre intends to explore, analyse and critique the legal developments in the aviation, space and allied industries through its various publications, research projects, and academic workshops, seminars and conferences.



Prof. (Dr.) Sandeepa Bhat B. Director, CASL



age.

Ms. Barsha Sinha Research Assistant

X Student Members



AnkurGhosh



Apurva Singhi



Devpriya Saswata



Kevin Davis



Navya Bhayana

2



NehaBanerjee



External Members

Mr. Abhijeet Singh Associate, RBI Innovation Hub

Mr. Arthad Kurlekar Associate, Curtis, Mallet-Prevost, Colt & Mosle LLP, Geneva DiplCArb, 2015, Chartered Institute of Arbitrators

Mr. Bruce K. Gagnon Coordinator- Global Network against Weapons & Nuclear Power in Space, United States of America

> Prof. Dave Webb Co-founder & Director – Praxis Centre, United Kingdom

> > Ms. Ceetanjah R Kamat Ex-Associate at Touchstone Partners Founder-Editor at IRCCL

Mr. Kiran Mohan V. Legal Officer, Asian-African Legal Consultative Organization (AALCO) Erin J.C. Arsenault Graduate Fellow, Institute of Air and Space Law, McGill University

> Mr. Pankaj Mehta Dharmashastra National Law University, Jabalpur (M.P.)

Mr. Sanjay Kumar Legal Manager, DHL Express India Private Limited, Mumbai

Prof. Subrata Ghoshroy Research Affiliate, Massachusetts Institute of Technology, USA

ACTIVITIES UNDERTAKEN BY OUR TEAM MEMBERS

Director:

PROF (DR) SANDEEPA BHAT B.

• Received the inaugural Sachdeva Award for Space Law in recognition of outstanding contribution to space law

Distinguished Memberships

UNIDROIT Correspondent for India

- Member American Society of International Law (ASIL), Baltimore, United States of America
- Member International Academy of Space Law (IASL), Moscow, Russia
- Member of Board of Advisors Global Network against Weapons & Nuclear Power in Space, Brunswick, United States of America
- Member of Advisory Board Centre for Research in Air & Space Law, Maharashtra National Law University Mumbai
- Founder & Editor-in-Chief *Lex ad Coelum*
- Member of Board of Editors, *The Aviation* & *Space Journal*, University of Bologna, Italy
- Member of Editorial Board International Journal of Air and Space Law, NUSRL Ranchi
- Member of Board of Advisors, *Space Policy Digest*
- Member of Advisory Board, *GNLU Journal of Air & Space Law*, Gujarat National Law University, Gujarat
- Member of Advisory Board, *Indian Review of Air & Space Law*, Maharashtra National Law University Mumbai

Research Projects/Activities Undertaken

 Collaborative Major Research Project on 'A Study of Airport Governance in India under the Contemporary International Legal Regime' (in collaboration with MNLU, Mumbai) - ongoing

List of Publications

- Sandeepa Bhat B., Dilip Ukey and Adithya Variath (eds.), *A Handbook on International Aviation Law*, Delhi: Thomson Reuters, 2023. ISBN: 978-93-95696-09-8.
 - Sandeepa Bhat B., 'Dealing with Civil Aviation Crimes', in Sandeepa Bhat B., Dilip Ukey and Adithya Variath (eds.), *A Handbook on International Aviation Law*, Delhi: Thomson Reuters, 2023, pp. 183 -209. ISBN: 978-93-95696-09-8.
 - Sandeepa Bhat B., 'Search and Rescue Operations', in Anna Masutti and Pablo Mendes de Leon (eds.), *Elgar Concise Encyclopedia of Aviation Law*, Cheltenham: Edward Elgar, 2023, pp. 466 - 469. ISBN: 978-1-80392-364-2 (e-Book: 978-1-80392-365-9).
- Sandeepa Bha) B. and Rohit Gupta, Sui Generis Interpretation of Key Elements of Space Demilitarization for Ensuring Peaceful Uses, *Indonesian Journal of International & Comparative Law*, Vol. X, Issue 2, 2023, pp. 113 159. ISSN: 2338-7602.
- Sandeepa Bhat B., 'Chandrayaan 3: An Opportunity to Set Right the Mistake of Artemis Accords', *Lex ad Coelum*, Vol. III, Issue 2, 5 September 2023, available at <https://caslnujs.in/2023/09/05/chandrayaa n-3-an-opportunity-to-set-right-themistake-of-artemis-accords/>.

 Sandeepa Bhat B., 'Outlining Inconsistencies in the Indian Space Policy 2023', *Lex ad Coelum*, Vol. III, Issue 1, 1 May 2023, available at <https://casinujs.in/2023/05/01/outlininginconsistencies-in-the-indian-space-policy-2023/>.

Conference Presentations

- 'Dealing with Inventions in Space', 15-Hour Capacity Building Programme on 'IPR & Outer Space Activities', Jointly hosted by DPIIT IPR Chair, Centre for Research in Intellectual Property and Centre for Research in Air and Space Laws, MNLU Mumbai, 25 - 29 November 2023.
- 'Space Law and its Practical Significance', 7-Day Faculty Development Programme on Contemporary Developments in International Law, Symbiosis Law School, Pune, 30 October 2023.
- 'Contemporary Trends in International Space Law', International Webinar on Space Law, Aligarh Muslim University, Aligarh, 21 October 2023.
- 'The Legality of Artemis Accords', *Global Conference on 'Resource Mining in the Outer Space: Artemis Accords and Beyond'*, Jointly hosted by Center for Air and Space LawUniversity of Mississippi, Centre for Aviation and Space Laws WBNUJS and Centre for Research in Air and Space Law MNLU Mumbai, 14 October 2023.
- 'Let's be the Leaders and not the Blind Followers', *International Workshop on Space Policy and Roundtable on Indian Space Policy 2023*, Jointly hosted by Centre for Aviation and Space Laws WBNUJS, Centre for Research in Air and Space Laws MNLU Mumbai and Prof. V.S. Mani Centre for Air and Space Law GNLU, 8 October 2023.
- 'Debunking the Indian Fallacy of the Cape Town System', *International Symposium on Aviation Law and Practice*, Jointly hosted by Centre for Aviation and Space Laws WBNUJS, Centre for Research in

Air and Space Laws MNLU Mumbai and Prof. V.S. Mani Centre for Air and Space Law GNLU, 7 October 2023.

- 'Space Tourism', 8th Edition of GNLU Air and Space Law Academy (GASLA 2023), Gujarat National Law University in collaboration with Institute of Air & Space Law, University of Cologne, 23 - 27 September 2023.
- 'Space Insurance', 8th Edition of GNLU Air and Space Law Academy (GASLA 2023), Gujarat National Law University in collaboration with Institute of Air & Space Law, University of Cologne, 23 - 27 September 2023.
- 'Evaluating Human 'Gateway' to Celestial Bodies from Space Treaties' UN Perspective', Space Education and Strategic Applications Conference Islands in Space: From Skylab to Gateway, American Public University, Charles Town, United States of America, 21 & 22 September 2023.
 - 'Aviation and Space Laws', Faculty Development Programme on 'Multidisciplinary Approaches on Legal and Social Issues', Reva University, Bangalore, 31 July - 6 August 2023.
 - 'Concerns in Indian Space Policy 2023', Panel Discussion on India Space Policy (for Policy inputs to GoI), Gujarat National Law University, Gandhinagar, 9 July 2023.
- 'Emerging Challenges in Space Law' (2nd International Conference on Air and Space Law, Gujarat National Law University, Gandhinagar, 8 July 2023. [Also presided over a session as Chairperson]
- 'Introduction to International Space Law!, *Colloquium on Public International Law*, School of Legal Studies, CUSAT, Cochin, 7 July 2023.
- 'Dealing with Space Weaponization under the Outer Space Treaty 1967' (Keynote Address), 16th International Seminar on the Role of International Law in Controlling Weaponization and Arms Race in OuterSpace, Kerala Law Academy, Trivandrum, 24 June 2023.

 'ICJ's Approach to Aviation Dispute Resolution: A Concern to Address', Annual International Symposium on Air and Space Law: Dispute Settlement in Air and Space Law, Jointly hosted by Centre for Aviation and Space Laws WBNUJS and Centre for Research in Air and Space Laws MNLU Mumbai, 6 May 2023.

• 'Evaluating Private Space Tourism in the Backdrop of UN Space Treaties', 3rd International Space Economy, Space Law and Space Sciences Symposium, Faculty of Economics, Faculty of Law and Observatory Research and Application, Istanbul University, Turkey, 4 & 5 May 2023.

- 'Space Authorization and Liability Issues', Brain-Storming Session on Legal Aspects of Authorizations to be Issues for Various Space Activities and Related Third Party Liability (Rule-making), Indian Space Promotion and Authorization Centre, Bengaluru, 21 March 2023.
- 'Space Law', One Day National Workshop on Unexplored Sectors of Law, SDM Law College, Mangalore, 20 March 2023.
- 'Flawed System of Dispute Resolution in International Civil Aviation', National Seminar on 'Recent Trends in Air Transport Management and Aviation

Laws', Damodaram Sanjivayya National Law University, Visakhapatnam, 11 February 2023.

 'Role of Space Sector in the Self-Reliant India: Law and Policy Perspective', Two-Day International Conference on "Self-Reliance in Trade and Development: Re-Defining the Contours of Law and Policy", National Law School of India University, Bangalore, 20 & 21 January 2023. [Also presided over a session as Chairperson]

Invited Lectures

- "Aviation Liability and Insurance', HAL Management Academy, Bangalore, 28 December 2023.
- 'Aviation Liability, Passenger Rights and Consumer Protection', HAL Management Academy, Bangalore, 22 December 2023.
- 'International Conventions Relating to Civil Aviation', HAL Management Academy, Bangalore, 21 December 2023.

Student Member:

MS. APURVA SINGHI

• Assistant Coach of the Manfred Lachs Space Law Moot Team, which is representing the West Bengal University of Juridical Sciences in the upcoming competition.



PAST EVENTS

* 2023 has been the year of immense success for CASL with four major international conferences being organized under its banner. CASL also has the credit of being an Academia Partner for Indian Space Conclave 2023, which was held on 9 October 2023,

International Symposium on Air and Space Law 2023



On 6 May 2023, CASL and the Centre for Research in Air and Space Law (CRASL), MNLU Mumbai hosted the International Symposium on Air and Space Law 2023 on the theme 'Dispute Settlement in Air and Space Law'. The symposium began with a welcome address delivered by Adithya A. Variath (Coordinator of the CRASL), which was followed by the patrons' address from Prof. (Dr.) Dilip Ukey (Vice-Chancellor of MNLU Mumbai) and Prof. (Dr.) N.K. Chakrabarti (Vice Chancellor of WBNUJS Kolkata). Subsequently, addresses were delivered by Prof. (Dr.) Sandeepa Bhat (the Director of CASL) on 'ICJ's Approach to Aviation Dispute Resolution', Michelle L.D. Hanlon (the Co-Director of the Center for Air and Space Law, University of Mississippi) on 'Litigating Due Regard' and Dr. Maria A. Pozza (Director & Lawyer - Gravity Lawyers and Director Otago Foreign Policy School, New Zealand) on the challenges faced by States while implementing international space law at the domestic level.

The first technical session included addresses by Amna Al Owais (Chief Registrar of the DIFC Courts, Dubai) on the future of air and space law dispute settlement, Laura Zielinski (Attorney at Holland & Knight Mexico SC) on investment arbitration in the space sector, Andrea Trimarchi (Lecturer of Aviation Law and International Law at University of Cologne) on the role of domestic courts in air and space law disputes and Ishita Das (NALSAR University of Law, Hyderabad) on the Commission under Claims the Liability Convention. The session was concluded by Aaditva Vikram Sharma and Lipi Garg (Vivekananda Institute of Professional Studies, Delhi) as they presented their perspectives on pace dispute resolution mechanisms. Discussion of DIFC Courts and the efforts to cover space di putes under them was very informative.

The second technical session covered addresses on corporate insolvencies afflicting the aviation industry, dispute settlement in space tourism and the Antrix-Devas case. The last two presentations highlighted grave concerns about the existing dispute resolution mechanisms in dealing with high-end space disputes. Thereafter, the third session included discussions on the future of the space and aviation sector as the speakers presented addresses on PCA Optional Rules, the role of technology in resolving air and space law disputes, the impact of such disputes on international relations and peace and on evaluating the most effective means for peaceful settlement of space disputes. Indian scholars like Dr. Divya Tyagi, Adithya Variath and Dr. Mirza Juned Beg deliberated on these topics.

The symposium was a huge success and the outcome of the symposium is certain to make an essential contribution to the academics and regulatory framework across countries. The event was attended by over 200 participants.

International Symposium on Aviation Law and Practice



The International Symposium on Aviation Law and Practice, hosted by the Centre of Aviation and Space Laws (NUJS Kolkata) in collaboration with the Centre for Research in Air and Space Law (MNLU Mumbai) and the V.S. Mani Centre for Air and Space Law (GNLU Gujarat), took place on 7 October 2023. The event marked the commencement of a unique collaboration between these three esteemed centers dedicated to aviation and space laws in India. Hon'ble Justice Ujjal Bhuyan, Judge, Supreme Court of mora, inaugurated the symposium as the Chief Guest.

The symposium began with a welcome address by Adithya A. Variath, Coordinator of CRASL, MNLU Mumbai, followed by the launch of the book 'A Handbook on International Aviation Law,' edited by Prof. (Dr.) Sandeepa Bhat, Prof. (Dr.) Dilip Ukey, and Mr. Adithya A. Variath. This comprehensive book covers critical aspects of international aviation law, including public, private, and penal laws in the aviation sector. Prof. (Dr.) Sandeepa Bhat delivered a special address highlighting the conceptual differences between aviation law and outer space law. The keynote address on employment opportunities in the aviation industry was given by Prof. (Dr.) Shanthakumar, Vice Chancellor of GNLU Gujarat. The symposium also featured a detailed presidential address by Prof. (Dr.) Dilip Ukey, Vice-Chancellor of MNLU, Mumbai, and a valuable Chief Guest's address by Hon'ble Justice Ujjal Bhuyan, emphasizing the need for legal scholarship in aviation and space laws.

The technical sessions covered topics such as air passenger rights, the Cape Town system in India, aviation industry's environmental impact, carriers' liability, legal and regulatory issues of unmanned aerial vehicles (UAVs), enhancement of safety, drone regulations, security issues, bilateral air service agreements and dealing with unruly passengers. Eminent speakers of this symposium included Prof. Paul Fitzgerald (Adjunct Professor, Institute of Air and Space Law, McGill University), Prof. (Dr.) Balakista Reddy (Former Registrar and Head of Centre for Aerospace and Defence Law, NALSAR University Hyderabad), Jesscia Los Banos (Faculty of Law, Universitas Pelita Harapan), Prof. (Dr.) Gurbachan Sachdeva (Adjunct Professor of Law, NASLAR University Hyderabad), Dr. Benarji Chakka (Dean and Professor, VIT AP), Kiran Mohan Vazhapully (Senior Legal Officer, Asian-African Legal Consultative Organisation), Dr. ArunaKammila (Associate Professor, ICFAI Law School, ICFAI University), Dr. Divya Tyagi (Head of VS Mani Centre for Air and Space Law, GNLU Gujarat), D. Deva Prasad M. (Associate Professor, IIM Kozhikode), Nitin Sarin (Managing Partner, Sarin & co.), Syed Tamjeed Ahmed (Co-Managing Partner of Spaviatech Law), Rishiraj Baruah (Senior Associate, AZB & Partners), and Mr. Harsha N. (Assistant Professor, NLSIU Bangalore). The symposium's success was evident with over 200 participants gaining in-depth insights into various aspects of international and domestic aviation laws through engaging presentations and question and answer sessions.

International Workshop on Space Policy and Roundtable on India Space Policy 2023



The International Workshop on Space Policy and Roundtable on Indian Space Policy 2023, jointly hosted by the Centre of Aviation and Space Laws (NUIS Kolkata) the Centre for Research in Air and Space Law (MNLU Mumbai), and the V.S. Mani Centre for Air and Space Law (GNLU Gujarat), took place on 8 October 2023. This collaborative event attracted academicians, space industry representatives, practitioners, and researchers from around the world, focusing on a detailed analysis of the 2023 Indian Space Policy.

The workshop commenced with a welcome address by Adithya A. Variath, followed by the launch of the inaugural issue of the Indian Review of Air and Space Law, dedicated to Prof. (Dr.) Sandeepa Bhat B. (Director of CASL) as a token of appreciation for his continuous endeavour in aviation and space laws as well as assistance in the development of CRASL. Prof. Bhat delivered the keynote address and emphasized the need of having a national space legislation by balancing international treaty obligations with that of facilitating the entry of private players in the space sector. After this, the special address was delivered by the guest speaker Ms. Jessica Los Banos, Faculty of Law, Universitas Harapan, Indonesia. Prof. (Dr.) Dilip Ukey Hon'ble Justice Ujjal Bhuyan deliv Justice vered presidential address and chief guest's address respectively.

The roundtable on Indian Space Policy 2023 featured key deliberations by experts such as Prof. (Dr.) Gurbachan Sachdeva (Adjunct Professor of Law, NASLAR University Hyderabad), Prof. (Dr.) Sandeepa Bhat (Director of CASL), Kiran Mohan Vazhapully (Senior Legal Officer, Asian-African Legal Consultative Organisation), and Dr. Benarji Chakka (Dean and Professor, VIT AP). The critique of the policy, its legislative absence, and its non-appropriation principle violation were addressed in detail by the experts. Subsequent including Rajeswari panelists, Dr. Pillai Rajagopalan (Director, Centre for Security, Strategy & Technology, Observer Research Foundation), Prof. (Dr.) Sudharshan Kumar (Dean, Department of Aerospace Engineering, IIT Bombay), Mr. Rishiraj Baruah (Senior Associate, AZB & Partners), Mr. Syed Tamjeed Ahmed (Co-Managing Partner of Spaviatech Law), Aruna Kammila (Associate Professor, ICFAI Law School), Dr. Divya Tyagi (Head of VS Mani

Centre for Air and Space Law), and Dr. Deva Prasad M. (Associate Professor, IIM Kozhikode) shared concerns and perspectives on security, private sector involvement, challenges in implementation, sustainability, reinterpretation of international treaties, policy certainty, and legislative backing.

The parallel technical sessions were the last part of the event where experts in different aspects of space law and policy presented many insightful papers and exchanged knowledge with each other. These sessions witnessed discussions on Space Policy of Indonesia, space policies and peaceful uses, commercial aspects of outer space, asteroid mining, Artemis Accords, space sustainability, environmental impacts of space activities, debris mitigation strategy etc. All sessions, with over 150 participants, proved successful in providing an indepth understanding the nuances of space law and policy, customary law, and their relationship with national space policy.

Iobal Conference on 'Resource Mining in the Outer Space: Artemis Accords and Beyond'



The Centre of Aviation and Space Laws at NUJS Kolkata, in collaboration with the Center for Air and Space Law at the University of Mississippi School of Law and the Centre for Research in Air and Space Law at MNLU Mumbai, organized a global conference on 14 October 2023, focused on the theme of 'Resource Mining in Outer Space: Artemis Accords and Beyond'. The conference drew participants and audience members from various continents, making it a truly global event.

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The conference commenced with welcome addresses from the Vice Chancellors of two prominent national law universities. Keynote speaker Michelle Hanlon (Executive Director of the Center for Air and Space Law) discussed on the topic 'Section 9 of the Artemis Accords: The Starting Point.' Prof. Sandeepa Bhat B. (Director of CASL) critically evaluated the legality of Artemis Accords and its potential conflicts with UN space treaties, setting the stage for further discussions.

Subsequent panels delved into topics such as the interplay between the Artemis Accords, Moon Registration Agreement and Convention, sustainable space exploration, implications of India signing the Artemis Accords, legal considerations body of celestial resource exploitation, reviewing Principle 11 of the Artemis Accords, legal and policy aspects of the Artemis Accords, space sustainability from the international investment law perspective, TWAIL and Artemis Accords and building of new international space norms.

Notable speakers included Prof. Kai-Uwe Schroghl (President, International Institute of Space Law, Paris & Director of the European Space Policy Institute, Vienna), Prof. Steven Freeland (Vice-Chair - United Nations COPUOS Working Group on Legal Aspects of Space Resource Activities), Prof. Frans G. von der Dunk (Professor of Space Law, University of Nebraska), Prof. Bruce Gagnon (Co-Founder of the Global Network against Weapons & Nuclear Power in Space), Dr. Rossana Deplano (Co-Director of the Centre for European Law and Internationalisation), Dr. Divya Tyagi (Head, VS Mani Centre for Air and Space Law, GNLU), Adithya Variath (Coordinator - CRASL) and Dr. Asha P. Soman (Associate Professor, IFIM Law School, Bangalore).

The success of this global conference is evident from the scholarship of resource persons and paper presenters as well as the participation of audience from different continents. With more than 100 participants hearing the views of some of the best known space law experts, the conference had immense success. The conference is expected to influence the participants to take positive steps in the direction of protecting the sanctity of common rights' regime of outer space from the or slaught of commercialisation.

BLOG POSTS

CAO's Approach to Address Aviation Pollution: A Critical Analysis

This blog piece is authored by Dr. Aruna Kammila who works as an Associate Professor at ICFAI Law School, ICFAI University, Hyderabad. The first part of this piece delves into the environmental impact of civil aviation and the The Standards response of ICAO. and Recommended Practices under Annex 16 of the Chicago Convention are discussed by the author by focusing on different aspects of noise pollution, aircraft emissions and fuel efficiency. Efforts made by private airlines like Air France to attain environmental sustainability are appreciated by the author. The role of the United Nations Framework Convention on Climate Charge, Kyoto Protocol and Carbon Offsetting and Reduction Scheme for International Civil Aviation (CORSIA) in aviation sustainability is evaluated in the next part. Before concluding with the suggestion of attributing State responsibility, the author highlights the shortcomings of the ongoing efforts.

Read the blog <u>here</u>

From Hesitation to Engagement: India's Path towards Global Aviation Sustainability

Kiran Mohan Vazhapully, a Senior Legal Officer at the Secretariat of the Asian-African Legal Consultative Organization (AALCO), authored this blog piece. The author starts with the effect of aviation on the global climate to make a case for sustainability. ICAO's efforts in terms of the Carbon Offsetting and Reduction Scheme for International Civil Aviation (CORSIA) are discussed in the next part. The author then moves on to unveil the initial reluctance and subsequent structured engagement of India with CORISA. The developments that have taken place in different Indian airports to reduce carbon footprints are analysed by the author. He concludes by appreciating the Indian move and highlights the possibility of India taking the lead among the developing countries in the move towards aviation sustainability.

Read the blog here

Chandrayaan – 3: An Opportunity to Set Right the Mistake of Artemis Accords

This blog has been authored by Prof. (Dr.) Sandeepa Bhat B., Professor of Law and Director - CASL. The author first briefly discusses the Chandrayaan-3 landing and the significance of the He then discusses the trend towards commercialization in the space sector, with a focus on celestial mining. In this context, the author discusses the Artemis Accords of 2020. Prof. Bhat then argues that India's action of signing the Accords contradicts its obligations under the international space treaties, specifically the principle of national non-appropriation. Finally, the author suggests that India use the achievement of the Chandrayaan-3 landing to have an independent say in the space community and work towards negotiating an acceptable regime for celestial resources.

Read the blog <u>here</u>



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Cislunar Space Strategy in Light of the Outer Space Treaty

This blog has been authored by Thomas Paul Kanatt from National Law University, Jodhpur. This article focuses on the National Cislunar Science and Technology Strategy (The Strategy) of the United States. It critically analyses the Strategy in light of the obligations under the Outer Space Treaty. The initial part of the article looks into the definition of Cislunar space and its importance. It then highlights the key aspects of the Strategy before analysing the Strategy in light of the obligations of peaceful use, nonappropriation, and the exploration and use of outer space and celestial bodies for the benefit and in the interest of all countries. Finally, the article looks into whether the Strategy only deals with exploration for scientific purposes or goes beyond it as well. The author calls for the Strategy as well as the activities performed in furtherance of it to be carefully monitored to check for compliance with international legal obligations

Read the blog here

Sovereignty in Space: Changing Dimensions

This blog has been authored by Kaushik H.M. of Jindal Global Law School, Sonipat. This article investigates the relationship between nation-states, sovereignty, and space exploration. The first part of the article highlights the position under the Outer Space Treaty with respect to sovereignty. It then compares the regime in the Law of the Seas to the Space Regime. The article then makes three primary arguments. First, that the current interpretation of international law, which prohibits nation-states from asserting sovereignty in space, is unlikely to last long. Second, that property rights and sovereignty are inextricably linked in ways that international law cannot ignore. that there is the potential for harmony bety nation-state interests in space and humanity collective interests.

Read the blog here

Beyond Borders: Applicability and Contours of Criminal Law in Space

This blog has been authored by Tanmay Mehta, who is a Junior Associate at the Chamber of Tushar Mehta, Solicitor General of India. This article explores the prospective application of criminal law in space. The first part of the paper discusses the increasing possibility of crimes in space and the individual efforts of States to address the same. It then looks into jurisdictional issues in the application of criminal law and the problems that may arise due to the lack of sovereignty in space. It discusses the differing approaches that may be taken such as the nationality-based approach and the registrationbased approach. The article then explores the existing legal framework and suggests a mixed approach which involves the reconciliation and application of the Intergovernmental Agreement on the International Space Station and certain provisions of the Outer Space Treaty for dealing with crimes in Outer Space.

Read the blog <u>here</u>

Go First Insolvency: Exploiting the Lacuna in the Aircraft Rules 1937

This blog piece has been authored by Karan Nimish Vakil, an Associate at Tyabji Dayabhai, Advocates & Solicitors. In light of the petition by Go First seeking voluntary insolvency proceedings, the author focuses on the remedies available to aircraft lessors in case of such triggers. While the Cape Town Convention and the Cape Town Protocol enshrine speedy remedies for the repossession of aircraft by lessors, India is yet to implement them at its domestic level. Therefore, the lessors leasing aircraft in India are unable to exercise such protection and have to rely on domestic laws such as the Aircraft Rules, 1937. he author further elucidates the manner in which the Insolvency and Bankruptcy Code overrides the Arcraft Rules, which allowed Go First to retain possession of the aircraft. Lastly, the author suggests a legislative enactment for the restoration of lessor confidence in the commercial aviation sector of India.Read the blog here

Outlining Inconsistencies in the Indian Space Policy 2023

This blog piece has been authored by Prof. (Dr.) Sandeepa Bhat B., Professor of Law and Director, Centre for Aviation and Space Laws, National University of Juridical Sciences. The author writes introduction about the of private-sector participation in the space services sector in India through measures such as the establishment of the Indian National Space Promotion and Authorization Centre and the introduction of the 2023 Policy. However, the author highlights the absence of a national space law in India which raises questions about the implementation of the Indian Space Policy. Further, the absence of national space legislation implies a failure on India's part to discharge its obligation of authorisation and continued supervision of space activities, which attracts State Responsibility under Article VI of the Outer Space Treaty 1967. In addition, the author also highlights the

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provisions of the 2023 Policy which are incompatible with the United Nations space treaties. Lastly, while highlighting some incidental issues, the author focuses on the need to rethink the 2023 Policy such that it does not usurp the international space law and Indian legislative domains. Read the blog here

Space Debris as an Environmental Pollutant: Conceptualising Ramifications and Solutions – Part I & II

This two-part blog piece has been co-authored by Sanva D. Kishwar, Lecturer, O. P. Jindal Global University, Sonipat and Shivansh Nangia, Student, O. P. Jindal Global University, Sonipat. In the first part, the authors discuss the ramifications of space debris as an environmental pollutant. The authors highlight the lack of a universally agreed-upon definition of an environmental pollutant, which has given rise to the issue of the classification of space debris as a pollutant. The inadequacies of Articles II and III of the Liability Convention 1972 to cover the aspect of space pollution are highlighted b authors. Therefore, the authors highlight importance of legal norms to determine liability for polluting outer space.

Read the blog here

In the second part of this blog piece, the authors critically analyse the existing legal frameworks on outer space including the Partial Nuclear Test Ban Treaty 1963, the Liability Convention and the Principles Relevant to the Use of Nuclear Power Sources in Outer Space. After examining their shortcomings, the authors identify two major gaps in the international framework. First, there is a lack of a uniform definition of 'environment', which makes it difficult for many international environmental law principles to apply to outer space. Second, the lack of a dedicated and binding instrument recognising space debris as an environmental pollutant and fixing State liability makes it difficult to assign debris cleaning duties to the polluting State. Finally, the authors provide comprehensive recommendations to reduce the impact of space debris pollution.

Read the blog here

Spy Balloon and International Law: Has Both China and U.S. Violated International Law?

This blog piece has been authored by Dr. Atul Alexander. Assistant Professor. National University of Juridical Sciences. In light of the U.S. shooting down the Chinese High Altitude Balloon in the sovereign airspace of the U.S., the author explores how both countries have violated their international law obligations. As per the Chinese claim, the balloon which was used for civilian purposes drifted due to the westerly winds which China claims to be a force majeure event. The author argues that the Chinese activity would be in violation of the Chicago Convention 1944, wherein Article 8 requires the pilotless aircraft to get special authorisation from the contracting State over which the aircraft is flown. On the other hand, the author argues that the U.S. violated international law as the requirements of proportionality, necessity and immediacy were not fulfilled to invoke the right of self-defence under Article 51 of the UN Charter.

Read the blog here.

Military Use of Commercial Remote Sensing Satellites

This blog piece is jointly authored by Agniva Das from the National Law University and Judicial Academy Assam and Dr. Amol Deo Chavhan, Associate Professor of Law, National Law University and Judicial Academy Assam. The blog discusses the legality of the use of civilian or commercial satellites for military purposes. It starts by providing a brief background about the use of commercial satellites in the Russia-Ukraine war and in previous wars as well. The blog then discusses the legalities of militarisation of commercial satellites by analysing Articles I, III and IV of the Outer Space Treaty as well as Principles I, IV and XII of The Remote Sensing Principles. The blog concludes by highlighting that the use of such satellites for military purposes should not be considered lawful since it infringes the rights and interests of the sensed countries.

Read the blog <u>here</u>

CURRENT DEVELOPMENTS

DECLARATION OF INSOLVENCY BY GO FIRST - DEFALCATION OR ASTRATEGY?

Neha Banerjee

India's robust aviation industry is facing financial hurdles due to unhealthy competition, risingdebts, and operational costs. Despite global passenger traffic potential, India ranks 10th, facingissues like aircraft repossession problems and fiscal pressures from fuel costs. Go First'sdownfall highlights a significant challenge in the Indian aviation sector: the substantial leasepayments tied to the risks faced by lessors. Unfortunately, Go First, using A320 neo planes withPratt & Whitney engines, suffered ₹10,800 crore losses due to engine problems, grounding 30-50% of its fleet since, 2020. It pursued arbitration against Pratt & amp; Whitney for ₹8,000 crore, winning the case but not receiving the engines by 27 April 2023 deadlin This forced Go Firstinto bankruptcy due to unsustainable fleet reduction.

In 2012, Kingfisher Airlines faced safety concerns, leading to license suspension by theDirectorate General of Civil Aviation (DGCA). Aircraft lessors began repossessing planes due topayment issues, while creditors moved towards liquidation. A consortium led by the State Bankof India (SBI) held Vijay Mallya and the airline responsible for debts. In the Jet Airways'case, SBI, as a Financial Creditor, initiated insolvency proceedings under the Insolvency andBankruptcy Code (IBC) 2016 at the National Company Law Tribunal (NCLT), Mumbai.

In both instances, banks managed to recover some funds, but operational creditors andemployees suffered significant losses. However, Go First's voluntary declaration of insolvencyhas distinct implications. NCLT imposed a moratorium from 11 May 2023, possibly leading toownership change. A one-time settlement, backed by 90% creditors, is an exit strategy, aligningwith recent Supreme Court ruling in *Brilliant Alloys Private Limited* v. *Mr. S. Rajagopal & Ors.* The Go First case underscores the need to reconsider promoter involvement in insolvency, given Section 29A's statutory bar on certain class of persons from submitting a resolution plan duringthe corporate insolvency resolution process. The one-time settlement involves promoterparticipation, especially without application of Section 29A Clause (c).

The Wadia Group seeks Section 29A exemption due to no financial defaults, enabling Section 12or Section 30 resolution plans. This case could set an early precedent, offering rescue strategies for other firms. Go First's insolvency, led by its promoters, highlights Indian firms' creativerescue tactics within creditor-focused laws. They initiated insolvency while their loan accountswere still in good standing, avoiding section 29A disqualification and enabling negotiations withcreditors.

One of the major concerns faced by the overseas lessors in this process of bankruptcy isderegistration of aircraft for export and taking possession of aircraft or aircraft engines. Thisbeing a historic problem faced during Kingfisher and Jet Airways bankruptcy proceedings, theproper implementation of Indian obligations under the Cape Town Convention and its AircraftProtocol are awaited in India.

IBC MORATORIUM EXEMPTION AND AIRCRAFT LEASING

Devpriya Saswata

The Ministry of Corporate Affairs has introduced a stopgap measure through its notification dated 3 October 2023, creating an exemption for aircraft, aircraft engines, airframes and kelicopters from the moratorium granted under Section 14(1) of the Insolvency and Bankruptcy Code 2016 ("IBC 2016").

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The Indian aircraft leasing market has found itself in a unique position in recent times. While on one hand, the commercial outlook seems to be largely positive, with a projection suggesting a market growth of up to 4.8 times its 2018 value by 2026. The establishment of the International Financial Services Centre at GIFT City, Guiarat which has accompanied tailwinds such as Air India Limited's ("Air India")massive order of 470 aircraft. InterGlobe Aviation Limited ("IndiGo") and Air India, the two largest players in the Indian aviation industry have planned to set up leasing arms at GIFT City. IndiGo has announced a Rs. 300 million investment, along with intentions to lease ten Airbus A320 Neo aircraft in its first lot. Air India has already established aircraft leasing units. However, there is also an air of caution, with the experiences of aircraft lessors in the country having particularly soured recently. The Aviation Working Group, which maintains the Cape Town Convention Compliance Ratings, has recently cut India's rating score from 3.5 to 2, with a negative outlook. At the heart of this duality is the fact that India is yet to pass domestic legislation transposing its obligations under the Cape Town Convention ("CTC") and its Aircraft Protocol, which it ratified in 2008.

The biggest issue faced by lessors was the conflict of the IBC 2016 which through Section 238 has a non-obstante provision that takes away protections granted to lessors under domestic legislation such as the Aircraft Rules 1937. The current route of enforcement requires a reliance on the Aircraft Rules 1937, which incorporates Article XIII of the CTC. Article XIII provides for the cancellation of registration by the Directorate General of Civil Aviation and repossession of an aircraft upon a complaint by an aircraft lessor. However, this mechanism could be overridden by the insolvency moratorium period. This is evident from Go Airlines India Ltd's (Go First) recent petition, where for the first time in the aviation industry an operator had filed for voluntarily entering into the Corporate Insolvency Resolution Process under the IBC 2016. This led to major concerns being raised as Go First's lessors were rendered unable to repossess aircraft from its fleet. Further, Pratt and Whitney, an engine lessor to Go First, had clarified in legal proceedings in Delaware that it was not willing to supply engines due to the increased risk it would have to undertake now that

Go First has been granted a moratorium against any attempts to repossess its aircraft or engines.

The Indian Legislature has made two failed attempts to incorporate CTC in the domestic level. Both the Cape Town Convention Bill 2018 and the Protection and Enforcement of Interests in Aircraft Objects Bill 2022 failed to see the light of day. In the interim, the stopgap notification issued by the Ministry of Corporate Affairs is said to provide respite to the overseas lessors. However, how far this executive notification, in the absence of a legislation, is capable of building confidence in the mind of lessors is a point to be noted soon.

REMOTE IDENTIFICATION RULE FOR DRONES

Navya Bhayana

As the introduction of drones is making ripples in aviation sector, the Federal Aviation Alministration (FAA) is working towards regulating drones by integrating them into the National Airspace System (NAS). One such measure of regulation is the FAA's recent Remote Identification Rule which requires all drone pilots, who are required to register under the Code of Federal Regulations or have registered their drone, to be able to broadcast their identifiers in realtime.

These identifiers are electronically embedded, and they include essential information such as the geometric altitude, latitude and longitude of the aircraft, velocity, and emergency status of the drone. Since the drones have a limited line of view, they cannot detect hazards which can result in collision with other aircraft. The Remote Identification of drones will enable the authorities to locate the drones and warn other aircraft which may be incapable of detecting the drones. This is essential to avoid collision with crewed and uncrewed aircraft, and thereby, maintain safety and security in the national airspace.

Though the FAA sought to introduce drone registration as early as 2013, when it published the first edition of Integrating Civil Unmanned Aircraft Systems in the NAS, the first registration requirement was enforced only in 2016. With the

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introduction of the Remote Identification Rule, while drone pilots are required to comply with the Rule by 16 September 2023, the FAA will consider limiting factors while taking enforcement action through 16 March 2024. The aviation industry has been preparing to comply with the Rule in anticipation of the deadline. For instance, Censys had halted the manufacture and sale of its drones in 2022 to redesign the navigation and communication system which would be in compliance with the FAA requirements.

As the aviation industry gears towards complying with the safety-related requirements imposed by the Remote Identification Rule, the regulations can be seen to be facilitating the safe use of airspace. The introduction of the Rule comes as a necessary regulatory measure that will enable the FAA to manage air traffic and integrate the national airspace, which may be predicted to be followed by aviation regulatory bodies globally.

CHANDRAYAAN 3 CONFIRMS SUPA INSULATING LUNAR REGOLITH!

Ankur Ghosh

Chandrayaan 3's successful landing has thrown up a slew of scientific information about the characteristics of the lunar environment. In particular, it confirmed that the lunar topsoil is a super-insulator with a probe from the Vikram lander confirming that the temperature 8 cm below the surface is -10C, down from 50C on the lunar surface. This confirmation will only further contribute to plans to utilise the lunar regolith for building human habitats to support long-term missions, keeping in mind the insitu resource utlisation plans of various space-faring nations. Possible ways in which the regolith will be used include making construction blocks or bricks out of it or placing a layer of regolith above preconstructed structures to combat the effects of radiation and extreme temperature differences on the moon.

However, such utilization of regolith is going to bring challenges of its own. The extraction and use of the lunar regolith and subsoil create lunar dust, which constitutes small particulate matter, and remains suspended over the surface through solar winds. As observed during the Apollo missions, lunar dust has extremely deleterious effects on equipment that are used in space exploration. It has also got the capacity to degrade life support systems. The constituents of lunar dust also have the capacity to cause irreversible lung damage if inhaled. With the use of lunar regolith and other space resources through mining in the future, such lunar dust is bound to increase by leaps and bounds.

Such an increase in lunar dust will have the capacity to interfere with the space activities of all states on the moon, with the possibility of endangering the lives of astronauts and personnel engaged in different space missions. Any such extraction and use of regolith which would suspend lunar dust onto the lunar surface would invite the application of Article IX of the Outer Space Treaty, which requires States to prevent harmful contamination of space environment. The States are also duty-bound to have 'due regard to presponding interests of all other State Parties' while carrying on activities in outer space and celestial bodies. In addition, Article IX requires the States to carry out international consultations before carrying out activities which can harmfully interfere with the activities of other states in outer space. The possible suspension of lunar dust while extracting regolith would certainly involve the requirement of carrying out such consultations because of its potentiality to

LUNAR GATEWAY AND OSIRIS-REX

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Shashank Tiwari

In an era where humanity's reach extends beyond our planet, two groundbreaking developments are capturing the world's attention: the Lunar Gateway and the recently concluded OSIRIS-REx mission. These advancements mark significant milestones in our quest to explore the cosmos. The Lunar Gateway, poised to become humanity's first deep space gateway, is set to orbit the Moon, bridging the gap between our terrestrial endeavors and deep space exploration. This remarkable space station, planned for assembly and placement in the 2020s, results from collaborative efforts between space agencies, including NASA, ESA, JAXA, and CSA. This inter-terrestrial space station will serve as a crucial platform for missions venturing into our solar system. It promises to be a nexus for scientific research, international cooperation, and a stepping stone for the next generation of space exploration.

NASA's OSIRIS-REx mission, initiated in 2016 and recently completed in September 2023, has captivated the world with its audacious goal collecting samples from the asteroid 'Bennu' and safely delivering them to Earth after an epic 1.2 billion mile journey. This mission's significance transcends celestial **OSIRIS-REx** its feat. contributes vital insights into the solar system's composition, shedding light on the mysteries of planet formation. In a spirit of international collaboration, NASA and JAXA have agreed to share the precious asteroid materials for further scientific research.

In this new era of space exploration, the legal landscape is evolving to address the challenges posed by commercial space activities. Modern space law hinges on a quartet of internation treaties, with the Outer Space Treaty taking co stage. These treaties uphold principles of perceful space use and liability. India has ratified four treaties, and is yet to embrace the Moon Agreement. The most recent addition to the legal framework, the Artemis Accord, introduces provisions allowing parties to extract and utilize resources from space, including for commercial purposes. However, critics argue that these provisions ambiguous, potentially remain favouring technologically advanced nations and private enterprises in the race to exploit space's commercial potential. Amidst the backdrop of international tensions, the space race has been reignited, with the Lunar Gateway emerging as a response to missions by countries such as China and Russia, including the Chinese ILRS mission. These endeavours evoke parallels with the age of exploration on Earth, where advanced nations take the lead in exploiting and colonizing new frontiers.

The Lunar Gateway and OSIRIS-REx missions serve as beacons of human achievement and international collaboration. However, they also highlight the need for robust and precise legal frameworks to ensure that the benefits of space exploration are equitably shared among nations and organizations. The future of space exploration promises to be as fascinating as it is challenging as humanity reaches out to touch the stars.

MOON AGREEMENT VIS-À-VIS ARTEMIS ACCORDS: AUSTRALIAN STATEMENTS OF MAY 2023

Apurva Singhi

Australia holds the unique position of being the only space-faring nation that has ratified all five space treaties. However, subsequent developments in its space policy, have made it difficult to tow this unique position. Australia and Saudi Arabia were the two states that were party to the Moon Agreement1979 as well as NASA's Artemis Accords 2020, before Saudi's withdrawal from the same in 2023. This has put Australia in a tricky spot of being the only State that is a party to both, especially in the context of discussions that the A temis Accords go against the obligations under the Moon Agreement. The element of nonappropriation of celestial resources and concept of common heritage of mankind enshrined under the Moon Agreement are of particular significance in this regard.

Recently, in the 60th Legal Subcommittee meeting of the UNCOPUOS, Australia defended its position as a dual signatory, submitting that the Artemis Accords are consistent with its international legal obligations. It submitted that the Moon Agreement lays out specific guidelines for Moon exploration and that it suggests the establishment of a regime to control the exploitation of the Moon's resources. Australia has, in accordance with international law, backed the exploration, exploitation, and use of space resources.

It was also highlighted that as part of humanity's scientific exploration of the solar system, minerals had been taken from the Moon and other celestial bodies before, during, and after the Moon Agreement was negotiated. Further, State Parties are expressly permitted by Article 6 of the Moon Agreement to use the minerals and other substances found on the Moon for scientific

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purposes, including in quantities necessary to support their missions.

Section 10 of the Accords states that the use of space resources can benefit humanity by providing critical assistance for safe and long-term operations. One of these operations is the scientific study of the Moon and our solar system, as specified in Article 6 of the Moon Agreement. Australia has further argued that under Section 10 of the Artemis Accords, the extraction of space resources does not automatically constitute national appropriation, which is prohibited under Article 11(2) of the Moon Agreement as well as Article II of the Outer Space Treaty. Certain obligations under the Moon Agreement were noted to have prospective rather than immediate effect. This includes considering the potential establishment of an international regime at a time when the Moon's natural resources are about to become economically viable. Australia has advocated for further development of norms that can guide the Moon's orderly and safe development, as well as the rational management of its natural resources.

While the above arguments of Australia seem to be in tune with the present day growing trend of space commercialisation, they remain unconvincing from the perspective of international treaty commitments. How the future trend unfolds in this regard remains a moot question, especially in the context of retaining the principle of equity in the domain of outer space.

DUAL USE COMMERCIAL SATELLITES: A TROJAN HORSE FOR USE OF FORCE IN SPACE

Kevin Davis

On 27 October 2022, a senior Russian military officer communicated the State's intention to view what it describes as "quasi-civilian infrastructure" as legitimate military targets under international humanitarian law. Such a declaration was made in light of reports which pointed to the satellite communication mechanisms of SpaceX's Starlink programme and Maxar Technologies being used to aid the Ukranian war effort. Starlink is a programme that involves a constellation of presently 3000 satellites (poised to expand to over 12,000 satellites over the next four years) oriented in the Lower Earth Orbit. Its proximate location and intricate multiple-node network allow the Starlink satellites to provide high-end accurate topography mapping and allow for real-time mapping of troop movement, which Ukraine continues to rely on.

Russia's decision to view Starlink satellites as legitimate military targets indicates its intention to action take military in outer space. Demilitarization is a fundamental tenet of outer space law, and it has been stressed in the five treaties that States must commit to the peaceful use of outer space. However, there exists an international armed conflict between Russia and Ukraine. It was noted by the International Court of Justice in the Legality of Nuclear Weapons Case that in the circumstances of an armed conflict, international humanitarian law [IHL] becomes lex specialis. Thus, there is friction between the igations of Russia under outer space law and its right to attack a legitimate military target under in ernational humanitarian law [Article 52(2) of Additional Protocol I to the Geneva Convention 1949]. Russia is in possession of anti-satellite missile technology, and the Starlink satellites, owing to their positioning in the LEO, are within the range of Russian missiles.

The *lex specialis* nature of IHL rights is triggered only if the Starlink satellites amount to a legitimate military target. While it is true that there is an element of discretion vested with the attacking State, there is an objective standard provided under Article 52, which is also recognised as customary international law. Under Article 52, there must be a "defined military advantage". Therefore, whether fundamentally civilian infrastructure such as Starlink satellites is capable of offering a "defined military advantage" owing to its "dual use" would determine the legitimacy of an attack against the satellite system.

However, the rule of *lex specialis* may not be sufficient to displace the relevant provisions of another special regime, as *lex specialis* refers to the hierarchy of law within the same regime. Articles I, III and IV of the Outer Space Treaty clearly emphasize the obligation of States to use outer space for peaceful purposes. Though these provisions of the Outer Space Treaty lack

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precision, the use of ASAT missiles to target satellites in the Lower Earth Orbit would ostensibly violate the essence of the Outer Space Treaty and also result in a possible violation of the UN Charter. Furthermore, any missile-based

attack against a satellite in the Lower Earth Orbit will most certainly lead to the creation of a large amount of space debris, which can have cascading environmental effects.

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