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THE SPACE-ARBITRAL ODYSSEY: A FUTURISTIC RESOLUTION FOR PRIVATE PLAYERS PARTICIPATION IN THE INDUSTRY

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Introduction

The space industry has become one of the most coveted fields wanting to be excelled by each country. Traditionally, the States and its agencies have dominated the space industry. Government agencies like the National Aeronautics and Space Administration ["**NASA**"] and the Indian Space Research Organization ["**ISRO**"] have endeavoured to achieve state goals. However, private players have recently begun footing their presence in space activities. Space tourism, asteroid mining, and satellite launching are some of the recent efforts of the private players, apart from aiding national missions. In this context, it would be detrimental to lose sight of the legal implications of such involvement. This paper aims to underline the growth of private sector participation in space and how it has increased the need for a steady and settled dispute resolution mechanism. Lastly, it highlights why Alternative Dispute Resolution ["**ADR**"] is required for space-related disputes. ADR mechanisms can be less adversarial and more conducive to reaching mutually beneficial agreements. Furthermore, this industry requires confidentiality, time sensitivity, and expertise, making ADR the pragmatic choice.

Background

Outer Space has long been predominated by state-run organisations putting forth their national space programmes. The space race originated with the rivalry between the United States of America ["**USA**"] and the Soviet Union, with the latter prevailing through its Sputnik Satellite. However, since the 1980s, the scenario has changed. Prof. Frans Von Der Dunk mentions the "practicalisation" of space activities, which led to the development of marketable applications like

satellite navigation, telecommunication, etc.[1] Due to this, private players were allowed to enter an untapped area. This led to the onset of space commercialisation.

Spacefaring dates back to Dennis Tito's arrival at the International Space Station as the first space tourist in 2001.[2] Since then, Spacefaring has turned out to be one of the chief areas of involvement of the private players. Companies like Virgin Galactica, BlueOrigin, and SpaceX have raised the stakes.

Moreover, the Commission on Implementation of the United States Space Exploration Policy has gone so far as to state that NASA's role must be limited to only those areas where government demonstration is required.[3] Otherwise, the operational activities must be competitively awarded to private players. Several Public-Private Partnerships ["**PPP**"] have been formulated under the Obama Administration to make propulsion technologies, small satellites, and more.

Domestically, India has allowed 100% Foreign Direct Investment in satellites ["**FDI**"] to promote private players' involvement in the space sector.[4] It also released the 'Indian Space Policy' in 2023 to allow and encourage Non-Government Entity ["**NGE**"] participation.[5] The activities will be authorized by the Indian National Space Promotion & Authorisation Centre ["**IN-SPACe**"], an autonomous government organization.[6] Privatization, however, has become a priority for the industry.

Existing framework for dispute resolution

Private players have been agile in pursuing litigation in space-related disputes. However, the legal framework surrounding space-related conflicts is different. Broadly, five treaties govern matters concerning space, none explicitly covering private players. The Outer Space Treaty of 1967 ["**Outer Space Treaty**"] is the only one that expressly covers the liability aspect of space exploration and the conflict such activities can cause. It called for the peaceful use of Outer Space and the liability of a State whose launched object had led to the damage.

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[1] Luc Colin, 'Outer Space Needs Arbitration' (*Space Arbitration*) <https://space-arbitration.com/outer-space-needs-arbitration/> accessed 25 September 2023.
[2] Jeffrey Kluger, 'The World's First Space Tourist Plans a Return Trip – This time to the Moon' (*Time Magazine*, 17 October 2022) <https://time.com/6222212/dennis-tito-moon-space-tourism/> accessed 25 September 2023.
[3] The White House, 'Executive Order: President's Commission on Implementation of United States Space Exploration Policy' (2004), <https://georgewbushwhitehouse.archives.gov/news/releases/2004/01/20040130-7.html> accessed 25 September 2023.
[4] PIB, 'Union Minister Dr Jitendra Singh says, presently FDI in space sector is allowed up to 100% in the area of Satellites-Establishment and Operations through Government route only' (6 April 2023) <https://pib.gov.in/PressReleasePage.aspx?PRID=1914226> accessed 25 September 2023.
[5] ISRO, 'India Space Policy – 2023' < https://www.isro.gov.in/media_isro/pdf/IndianSpacePolicy2023.pdf>".
[6] ibid.

This liability clause was elaborated in the Convention on International Liability for Damages Caused by Space Objects, 1972 ["**Liability Convention**"]. Precisely, under Article II, the Liability Convention provides for fault liability.[7] The launching state would bear absolute liability for any damage occurring on the surface of Earth. Under Article III,[8] provisions for fault-based liability are mentioned where it must be proven that a space object, due to the state's fault' caused damage to another state's space object. Fault can mean the absence of due diligence, whose obligation would be incumbent on the state's best effort to prevent damage to the other state. Concerningly, these norms do not include private players and are not mandatorily enforceable. It only calls for voluntary adoption and adherence.

With more than 30,000 satellites in orbit, the risk of collision is pervasive. Such trouble raises the probability of more damage claims, and no specific enforceable framework exists under which the parties can be held liable, let alone an arbitration framework. In 2021, one of the satellites launched by SpaceX came dangerously close to hitting a Chinese base; China had no recourse to approach Elon Musk's SpaceX directly and had to file a note to the US threatening legal action.[9]

Looking at the instances highlighted, it is evident that private players have waded into the space industry, with only higher participation in the future. Hence, losing sight of the legal implications of increased private players' involvement would be negligent. Historically, the space treaties have dealt with the state as a party rather than NGE, let alone private players. In retrospect, there have been notable space-related disputes. Some of them are highlighted below:

i. *Devas Multimedia Private Ltd. v Antrix Corporation Ltd.* ["**Devas Case**"]:[10] Devas Multimedia ["**Devas**"] agreed with Antrix Corporation ["**Antrix**"] for building and launching two satellites and leasing S-band capacity on the satellites for carrying out broadband wireless access and audio-visual services through India. The agreement was denounced since the pivotal S-band spectrum was leased to private companies instead of the Indian Military. Pursuant to such criticism, the government repudiated the contract. The aggrieved party brought the dispute before the International Chamber of Commerce ["**ICC**"]. The ICC passed an award of $562 million plus interest because

[7] Convention on International Liability for Damages Caused by Space Objects, 1972, art. II.
[8] ibid.
[9] Natasha Khan, 'China Lodges Complaint After Alleged Near Collision with Elon Musk's SpaceX Satellites' (*The Wall Street Journal*, 28 December 2021) <https://www.wsj.com/articles/china-lodges-complaint-after-alleged-near-miss-with-elon-musks-spacex-satellites-11640704035> accessed 25 September 2023.
[10] *Devas Multimedia Private Ltd v Antrix Corporation Ltd* ICC Case No 18051/CYK.

the repudiation was wrongful. However, the Supreme Court and the Delhi High Court have set aside the ICC award in India.

ii. *Eutelsat Communication v SES* ["**Eutelsat**"]:[11] The dispute before the ICC arises from concerns over the 28.5-degree East Orbital position. Eutelsat, once a government company, became a private company in 2001. This was after a wave of liberalization in the telecommunications sector. The Société Européenne des Satellites ["**SES**"] is an initiative of the Luxembourgish government. Eutelsat initiated arbitration proceedings against SES over the latter's usage of 500 MHz spectrum in the 28.5 degrees East Orbital Position. Such use was premised on the agreement between SES and Media Broadcast in 2005. The proceedings were initiated on the grounds that SES violated the Intersystem Coordination Agreement ["**ICA**"], to which Eutelsat was a signatory. This matter was later amicably resolved and put to rest in 2014.

Arbitration: The Way Forward

These disputes are one of many that have risen recently. Moreover, in the future, with advancement of technology, conflicts in space will continue to occur. While that cannot be controlled, our ability to deal with and resolve such issues can and should be maintained meticulously. Under Article 1 of the Outer Space Treaty,[12] Outer Space has been defined as a "province of mankind." However, no one can lay claim on Space. The Global Commons Principle implies no one can claim sovereignty over any part, Outer Space being a global common.[13] Thus, it proves to be extremely difficult to establish a place of arbitration and jurisdiction when resolving such disputes using arbitration. Space is no longer solely the domain of nation-states; private companies and their commercial ventures are a large part of space activity engagement. Thus, a balance between public and private interests must be struck when arbitrating between private players and State parties. Space law heavily depends on international cooperation.

Not only is there ambiguity about territorial claims of celestial bodies, but diplomatic relationships between States would also be jeopardized if there is non-compliance or disagreement between the States. The growing interest in resource extraction from outer space has led to discussions about

[11] 'An ICC Space Arbitration: Eutelsat Communications v SES' (*International Arbitration*, 16 September 2013) <https://www.international-arbitration-attorney.com/icc-space-arbitration-eutelsat-communications-v-ses/> accessed 25 September 2023.

[12] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, art. 1.

[13] Benjamin Silverstein & Ankit Panda, 'Space Is a Great Commons. It's Time to Treat It as Such' (*Carnegie, Endowment for International Peace* 9 March 2021) <https://carnegieendowment.org/2021/03/09/space-is-great-commons.-it-s-time-to-treat-it-as-such-pub-84018> accessed 25 September 2023.

property and territorial rights. The lack of clear international consensus on addressing this creates ambiguity. Undoubtedly, the lack of precedents in arbitrating such disputes adds to the complexities of this subject.

We need to develop a binding settlement method that will go beyond the contractual relationships and accommodate matters falling under state responsibility, fault liability, and economical remedies in space law. Professor Bockstiegel, in his pivotal academic articles, detailed a set of rules for binding arbitration that would form a new Convention on the Settlement of Space Law Disputes.[14] He summarized the arguments regarding space dispute resolution, saying that in most areas of law, a specific mandatory binding provision of dispute settlement is absent. A cohesive international framework is required. This would include the ability to deal with the issues' highly technical nature alongside the necessary legal expertise. Furthermore, space exploration most often would involve multiple parties to the projects, including private companies, States, and international organisations. Drafting an arbitration agreement that reasonably addresses all parties' interests will be complex, requiring an intricate understanding of the subject.

Arbitration is widely used for cross-border and industry-specific disputes. An existing pool of qualified lawyers in many commercial arbitration areas is equipped to deal with such technical issues. Arbitration also removes the concern of there needing to be a home court between private and foreign entities. In case of collisions between the private players and governing entities, a new arbitral system should be established by a space treaty or by an amendment to the existing treaty, which deals primarily with inter-state disputes.

Another resolution for mandating arbitration in disputes is to develop a network for arbitration by launching a system of national regulations, making it a standard condition for any launching party to accept international arbitration in case of any disputes arising and publish consent to arbitration. Arbitration would make the resolution process expeditious, neutral, and less costly. Currently, the treaties only permit a party to pursue a state in cases of collisions, with no remedy to seek a private entity directly for damage caused by them.

The Optional Rules for Arbitration of Disputes Relating to Outer Space Activities

The Optional Rules for Arbitration of Disputes Relating to Outer Space Activities ["**The Rules**"] were made effective on December 06, 2011. Their purpose was to fill in the lacunae present in the field of space law. They were broadly based on the United Nations Commission on International

[14] H. Bockstiegal, 'Settlements of Disputes Regarding Space Activities' (1993) 21 J. Space L. 1.

Trade Law ["**UNCITRAL**"] Rules of 2010 but were contextualized to be better equipped to handle issues arising in Outer Space.[15] While these Rules heavily relied on the UNCITRAL rules, they differed in certain aspects.

When selecting an arbitrator, the person chosen must know areas of both law and technology. Article 10(4) of The Rules provides a mechanism for determining the arbitrator based on their skill set.[16] However, at the same time, a leeway must be provided to ensure support to the Tribunal.[17] Consequently, Article 27(4) has been incorporated, which requests the parties to submit a document summarizing the dispute. It is suggestive that they must provide a non-technical summary of their issues. Also, Article 29(1) equips the Tribunals with the power to appoint an expert to understand the intricacies of the matter.[18]

Further, the Rules require the Tribunals to complete the proceedings within time. Every project and operation being carried out would be highly time-sensitive, and thus, the dispute resolution mechanism's efficiency shall reflect the functions' time sensitiveness. At the same time, the Tribunal must also understand the need for parties to want to protect their sensitive information. Article 17(6) is a provision the parties can apply to have their data be treated as confidential.[19] That is only if it is likely to cause serious harm to them or their operations. Again, an expert must act as a confidentiality advisor and report on the same without disclosing it to the opposing party or the tribunal as provided under Article 17(8).[20]

The Rules also provide a provision for waiver of any right to immunity. Article 1(2) provides this for governmental and quasi-governmental organizations pervading space relations contracts.[21]

However, concerningly, there has not been any publicly reported arbitration using the Permanent Court of Arbitration ["**PCA**"] Space Rules. Interestingly, the Devas case and *Deutsche Telekom AG v the Republic of India*,[22] even after being adjudicated by the PCA, were conducted under the UNCITRAL Arbitration Rules. Even after the flexibility and enforceability provided by the PCA Space Rules, diplomatic efforts or alternative rules have an edge. Considering the growth of private

[15] The Optional Rules for Arbitration of Disputes Relating to Outer Space Activities, Permanent Court of Arbitration (December 06, 2011).
[16] The Optional Rules for Arbitration of Disputes Relating to Outer Space Activities, art. 10 cl. 4.
[17] The Optional Rules for Arbitration of Disputes Relating to Outer Space Activities, art 27 cl. 4.
[18] The Optional Rules for Arbitration of Disputes Relating to Outer Space Activities, art 29 cl. 1.
[19] The Optional Rules for Arbitration of Disputes Relating to Outer Space Activities, art. 17.
[20] The Optional Rules for Arbitration of Disputes Relating to Outer Space Activities, art. 17.
[21] ibid.
[22] *Deutsche Telekom AG v The Republic of India* PCA Case No. 2014-10.

players in the space industry, the numbers so far have not prompted the adoption of formal dispute resolution by the players. Instead, mutually agreeable solutions are preferred.[23]

Way Forward

The issue of jurisdictional applicability is present today in various arbitration disputes. The newly established Space Court in the United Arab Emirates ["**UAE**"] was founded to advance the judicial system in recognizing the capability and capacity of commercial space-related activities.[24]

The Courts of Space was announced in April 2021,[25] and a working group was established. Additionally, the active group was tasked with creating a Space Dispute Guide. This Guide encompasses a set of rules to understand and resolve space-related disputes in an organized manner.[26] Other objectives of the working group and the guide are to train space dispute expert judges trained in space regulations and essential technical information. Regional agencies and international bodies would provide this training.

Further, a separate aerospace institution can be founded, primarily dealing with aerospace disputes between private investors and sovereign states. On similar lines to the International Centre for Settlement of Investment Disputes ["**ICSID**"], an International Centre for the Settlement of Outer Space Disputes can also be established,[27] focusing on catering to increased private player participation in the industry.

As noted above, the PCA has never implemented the PCA Space Rules. One of the reasons has been attributed to the need for more awareness. Considering it, the private players must be apprised of such rules, and other Arbitration Centres should proceed on similar lines. In the Indian context, it is disconcerting to note that the Draft Space Activities Bill doesn't even mention, let

[23] Christina Isnardi, 'Problems with Enforcing International Space Law on Private Actors' (2020) 58-2 Colum. J. Transnat'l L <https://static1.squarespace.com/static/5daf8b1ab45413657badbc03/t/5ed6c19ec930145149b92f2f/1591132576033/%28i%29+Isnardi+%2858-2%29.pdf> accessed 25 September 2023.

[24] 'Dubai Creates 'Space Court' for Out-of-This-World Disputes' (*Courthouse News Service*, 1 February 2021) <https://www.courthousenews.com/dubai-creates-space-court-for-out-of-this-world-disputes/> accessed 25 September 2023.

[25] 'Courts of Space Working Group' (*Courts of the Future*) <https://www.courtsofthefuture.org/cos/> accessed 25 September 2023.

[26] ibid.

[27] Rachael O'Grady, 'Star Wars: The Launch of Extranational Arbitration?' (2016) 82 CIARB ARB. J. <https://m.mayerbrown.com/Files/News/65d9148e-3117-4be0-9ca6-2777174a310d/Presentation/NewsAttachment/bf8d9bed-a660-40c4-af26-277f81502265/art_o'grady_star-wars_nov0416.pdf> accessed 25 September 2023.

alone provide, an arbitration framework.[28] Devising the same from the four principles laid down in the case of *Vidya Drolia v Durga Trading Corp* ["**Vidya Drolia**"][29] is an achievable and much-desired goal.

Conclusion

The need for a reliable mechanism to resolve disputes has never been more pronounced in the vast cosmos. Arbitration is the only beacon of rationality amidst the chaos. A neutral platform for dialogue and decision-making is necessary to safeguard the spirit of space exploration. It would be convenient for the working group established by the Space Court to involve more industry stakeholders. These stakeholders must range from different regions of the world, as space cannot be geographically discriminated against. Afterward, the working group may review the Rules to harmonize them with the needs of the hour. The Space Courts can be an optimum place for arbitration as we navigate these undiscovered celestial realms.

[28] Iram Majid, 'Is Space Law Truly Rocket Science?: A Comprehensive and Critical Analysis of the Dispute Resolution Mechanism in Space-Related Disputes – Part 2.' (*SCC Online*, 7 June 2021) <https://www.scconline.com/blog/post/2021/06/07/is-space-law-truly-rocket-science-a-comprehensive-and-critical-analysis-of-the-dispute-resolution-mechanism-in-space-related-disputes-part-2/> accessed 25 September 2023.

[29] *Vidya Drolia v Durga Trading Corp* (2021) 2 SCC 1.