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Re-Examining Indian Space Activities Bill: Structural Gaps, Commercialisation, and the Need for an Effective National Space Law

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ABSTRACT

The forthcoming Indian Space Activities Bill, which addresses the regulatory and structural shortcomings of the Draft Space Activities Bill, 2017, will mark a gradual and significant transition of the Indian space administration to a more international, coherent and future-oriented focus, aligning with Indian economic ambitions. By replacing the obsolete 2017 draft, emphasis will be laid on a more focused and strategic road to India's ambition to scale its space economy of 44 billion dollars by the year 2033. This research article will focus on the major guidelines and policies maintained by the Department of Space (DOS). As per the Government of India, DOS has the major responsibility for space activities in India. In this research paper, India's aspiration for a pivotal central law will be analysed, governing the aeronautic sector to minor satellite policies, guidelines, and executive framework, which function as a de facto "minor space law".

There will also be a scrutiny of the legal gaps concerning space object registration and commercial launches, whether the government can put more to this forthcoming bill to include Indian companies to make commercial launches or use an aeronautical platform to address customers with a wider range of products, This paper examines the Bill's core provisions, its alignment with international norms, and its potential to unlock a robust legal architecture for India's burgeoning space industry.

The main rationale of this paper is to scrutinise the provisions of the bill, analyse its legislative intent, evaluate its consistency with other contemporary international space law obligations, and offer practical solutions for strengthening India's administrative space regime.

I. INTRODUCTION

India, since the last fifty years, has seen a swift expansion in space activities under the aegis of the Indian Space Research Organisation (ISRO). Recent landmark missions like Chandrayaan-3 and Gaganyaan missions, and India's representation in the Axiom-4 missions, highlight the

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nation's adherence to excelling in space-related activities occurring across the world.

There have been recent observations on the commercialisation of space travel in India. The launch of the world's first rocket Agnibaan-SOrTeD, with a 3D-printed semi-cryogenic engine, by Agnikul Cosmos an Indian private startup accelerates the rise of private participation in space travel and an effort towards a supportive commercial space economy and it indicates a surge in innovation and research backed by a low-cost launch and regulatory frameworks like IN-SPACe, reflecting new vistas towards a regulated private commercial space-travel industry.

This research paper shall introduce a comprehensive analysis of the Indian Space Activities Bill, 2017, and it shall assess it to check whether it solves inadequacies, through a detailed analysis of the provisions of the Draft Indian Space Activities Bill, 2017. This paper would have a juxtaposed inspection, by comparing the nation's effort to introduce an upcoming regulatory space law with international law and laws of other nations in the world.

II. INSTITUTIONAL OPERATION OF THE SPACE FOUNDATION AND PROCEDURE IN INDIA

Historical Evolution of Space Infrastructure in India

Unfortunately, no Indian legislation or statute has defined the term "space operation". Article 2 of the Draft Space Activities Bill, 2017,[3] defines the term "space activity". It states that, "space activity means the launch of any space object, use of space object, operation, guidance and entry of space object into and from outer space and all functions for performing the said activities including the procurement of the objects for the said purposes."

As observed from the definition, space activities require comprehensive institutional frameworks to ensure regulated missions away from potential haphazard situations. Laws are needed to ensure liability and to provide damages for injuries. Such concepts should also apply to the space sector in India. For this, strong and dedicated institutional frameworks that actively work for the overall growth of the nation's space-related activities have to be established.

The institutional foundation of space operation and procedure in India started from the early 1960s under the aegis of ISRO. It was formerly known as INCOSPAR (Indian National Committee for Space Research), which was formed in 1962 under the Department of Atomic Energy. ISRO succeeded INCOSPAR and was formed in August 1969, under the vision of Dr Vikram Sarabhai. The Government of India established the Department of Space (DOS) in

[3] Draft Space Activities Bill, 2017, art. 2 (India), https://prsindia.org/files/bills_acts/bills_parliament/1970/Draft%20Space%20Activities%20Bill%202017.pdf.

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September 1972. ISRO was brought under DOS. The primary objective of DOS was to promote the development of space science and technological innovations to achieve self-sufficiency and self-reliance for the all-round development of the nation.

To balance the surge in the inclusion of the private sector in space travel, IN-SPACe (Indian National Space Promotion and Authorisation Centre) was created in 2020.[4] It is an autonomous agency under the DOS, and promotes space-based activities by non-governmental entities. It acts like a link between the government and the private entities, and it takes into account the needs of various private players.

NSIL (NewSpace India Ltd.), established under the Companies Act, 2013, is the commercial wing of ISRO.[5] This enables Indian space-related industries to adapt technological innovations and to use such innovations for commercial purposes.

All space-related activities in the country are governed by the Department of Space, which is directly administered by the Prime Minister of India. The policies are framed by the Space Commission, and the marketing of space products and services is formulated under Antrix Corporation, formed in 1992.[6]

Hence, by taking the case studies of ISRO, DOS, IN-SPACe, and NSIL, it can be concluded that space-related activities in a nation that has the opportunity to exercise its extreme potential always reach their completion and set new achievements for nations when they are governed by strong institutional frameworks working for a sustainable space sector.

III. Indian aeronautical governance in reconciliation of international space conventions: a dominion or acquiescence?

India's Obligations to Treaties and Its Internal Framework

In terms of treaties, that is, in effect, the real authoritative element in space administration, the relevant content of the OST, the Registration Convention 1975, the ARRA of 1968, and the Liability Convention of 1972,[7] this chronological order exposes and allows appreciation of the overall structure of law that these treaties constitute. This research explores the dynamics between India's domestic aeronautical and space governance and its commitment, or lack

[4] Indian Nat'l Space Promotion & Authorisation Ctr. (IN-SPACe), Indian Space Research Org., https://www.isro.gov.in/IN-SPACe.html (last visited Aug. 6, 2025).
[5] NewSpace India Ltd. (NSIL), Indian Space Research Org., https://www.isro.gov.in/NSIL.html (last updated July 31, 2025).
[6] Antrix Corp. Ltd., Indian Space Research Org., https://www.isro.gov.in/ANTRIX.html (last visited Aug. 6, 2025).
[7] Francis Lyall & Paul B. Larsen, *Space Law: A Treatise* (2d ed. 2018).

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thereof, to binding and non-binding international laws.

India is the signatory of the famous and the cradle of space administration all over the world, the OST 1967, which India ratified in 1982, and also incorporated several core principles from the international treaty, despite not having any national-level law for space administration. India consented to Article IV of the OST and will always be in compliance with Article IV of the OST, which states peaceful use of outer space. India has constantly emphasised the non-militarisation of outer space, aligning with the OST's prohibition of placing weapons of mass destruction in the upper orbit.

India, in spite of not having a single governing statutory act that governs the Indian space administration. The Indian Space Research Organisation Act, 1969, establishes ISRO as the primary organisation for the legislation of the Indian space laws, which is in coordination with the OST 1967, which India has ratified. In addition to this, India also has a domestic policy, which is the Satellite Communication Policy of India, which was formulated in 2000, providing guidelines for the use of satellite communication services in India.

The International Telecommunication Union, which was established on 17th May 1865,[8] was primarily aimed at broadening the advent of new communication technologies. India has been a member of the ITU since 1869, making it one of the oldest and most active participating members in global telecommunication governance likewise, in India, coordination and communication with ITU are handled by the Wireless Planning and Coordination (WPC) Wing is ISRO plans to launch any communication-based satellite or GSAT must first obtain frequency allocation by the ITU to avoid interference and ensure its compliance And corroboration with ITU.

Furthermore, the Government of India has enacted several laws in compliance with international regulations, such as licensing, registration, and safety aspects. These regulations cover areas such as satellite launches, remote sensing operations, and space applications. These laws provide necessary mandated compliance with these laws so as to hold the members accountable if there is default on their side, despite being the signatories of these conventions. India is also a party to the Rescue Agreement, formally known as the Agreement on the Rescue of Astronauts, the return of astronauts, and the return of objects launched into Outer Space.

India's active participation in these conventions and statutory laws has ensured more for the future concerning aeronautic administration and put the country on the path of airspace excellence and proficiency, and motivated it to develop a more dense and robust space national

[8] Int'l Telecomm. Union, About ITU, https://www.itu.int/en/about/Pages/default.aspx (last visited Aug. 6, 2025).

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level that will govern both the private sector and commercialisation of space launches within the country. India's adherence to these international laws explicitly and implicitly assures its ambition and future foresight with regard to space administration.

Whilst remaining very engaged with all the international happenings around space and space law, India is trying to develop a unified national-level space law, which will act as a framework for all the branches within ISRO to combine their efforts and has not achieved the motive since their last attempt in 2017, which was withdrawn by the country.

IV. EXPOSITORY ANALYSIS OF DEPLORABLE INDIA'S SPACE ACTIVITIES BILL, 2017: INDUSTRY CRITIQUE AND REFORM IMPERATIVES.

Analysing The Reasons of Failure of the 2017 Draft: Regulation, Legal Liabilities and Commercial Expansion

This section will focus its attention on the comprehensive analysis of the critique of the previously released 2017 India's space activities bill and its discrepancies, and how it will shape the future bill, and what changes would be expected and what will be crucial elements will be seen in the future bill, which will be tentatively released in the years following.

Indian Space Bill, which was previously released in the year 2017, have been criticized on various fronts, such as inclusion of criminal punishment for its violation, imprudent fine for violation of provisions, which will deter private enterprises, especially the new startups filled with ambitious goals to set their feet in the space sector, the right of government entities to inspect the premises of space activities at any time breaches the privacy for those engaged in the space business or are motivated to do business in space law, an autonomous nodal agency has not been appointed which would have ensured that fair opportunity and potential competition is provided to private entities via the governmental space endeavours, no Single Window Clearance opportunity has been provided. Single Window Clearance (SWC) is referred to as the streamlined approval mechanism that allows businesses or investors to submit all regulatory documents and get clearances from multiple government departments through one unified platform.

The main contention of the Space Activities Bill of 2017 was that, like the Sophia guidelines for Model Law on National Space Legislation of the International Law Association (Model Law) on which it is based,[9] our bill puts too much weight on liability due to damage by space

[9] Upasana Dasgupta, *Do National Space Laws Look Beyond Liability for Damage?—The Case of India*, in *Proceedings of the International Institute of Space Law 2018* (Inst. of Air & Space L., McGill Univ. 2018).

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objects, which reprovingly leaves crucial gaps to focus on important international obligations of India, such as rescue and return of astronauts and administration structurization within ISRO to handle different organisations proficiently and majorly solidifying different minor laws into one unified law and making it sole executory.

Before an attempt to build a national-level space law, ISRO had the upper hand on all the organisations and was handling public-private cooperation. Antrix Corporation was established in 1992 as a commercial arm of ISRO with the pivotal goal of supplying space products and conducting space launches, and to support the commercialisation of its projects. Antrix successfully collaborated with global industries in the domain of remote sensing, resulting in the establishment of the Indian Remote Sensing Satellites, which secured the commercial lease from Indian communication satellites to VSAT, DTH, and cable and TV service providers. From Antrix, it can be deduced that ISRO has been encouraging private industries to deliver commercial space products. With such an attempt, the organisation cannot tap into the lucrative multibillion-dollar satellite launch industry in which it commands a meagre 0.5 % share.[10]

The paramount problem with the same bill released in 2017 was that the bill weighed much more on its vigilance on the private entities trying to make their way in the Indian space administration or for the sole motive of commercialisation of their space products and focus on space launches, the 2017 bill adopted a major defunct oriented policy by acquisition of overly regulatory approach, viewing regulation as control, there was also a clause that arbitrarily described its implicit motive of having a fugitive approach from legal liabilities which was explicitly displayed by the Clause 26 of the bill lays down that no suit,[11] and no legal proceeding lies against the Central Government for anything done bona fide under the bill and the rules made under it. It grants an autocratic immunity to the Central Government for undertaking actions in good faith. This created ponderous doubt as to the constitutionality of the bill because it expressly excludes judicial review, which is a major caveat to the principle of "rule of law" and the democratic set-up of this nation.

The Space Activity Bill of 2017 provided that its provision applies to every Indian residing in India or outside, but the said bill does not state that it includes "non-citizens carrying out activity in India This provides an aperture to many foreign nationals to perform space activities in India and still hold the country of India accountable under several international conventions. This is particularly relevant as India has emerged as one of the most competitive and reliable launch

[10] Dasgupta, *supra* note 7.
[11] Draft Space Activities Bill, 2017, cl. 26 (India) (circulated by PRS Legislative Research, Nov. 21, 2017).

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service providers around the globe in the space domain. This is exhibited by the fact that India has launched 237 customer satellites from 29 foreign countries by July-August 2018. Section 2(f) of the bill described space activities bill as " the launch of any object, use of space object, operation, guidance and entry of space object into and from outer space and all functions for performing the said activities, including the procurement of objects for the said purposes", now in this case the word 'any space object' was very vaguely given it should also have focused on jurisdictional authority like use of territory or facility of India for any launch should have been launched which clearly gave way to international entities to perform launches from the soil of this country contributing nothing for this country and inter alia holding this country accountable for their activities.

Section 2(g) of Chapter 1 of the Space Activity Bill in 2017 also gave a vague definition of the word space object, which included "any object launched or intended to be launched, on an orbital trajectory around the world or the destination beyond the Earth's orbit." Here, the role played by the intention is undermined. The phrase "or attempted" should have been added after the word "intended", which would have had acted in accordance with the Liability Convention, which provides that "launching includes attempted launching"; this would have ensured that failed launches would also come under the ambit of the then space activity bill.

Section 3(a) of the bill provided that it should be the duty of the Central Government to frame policies in the context of exploration and use of outer space for peaceful purposes, with due emphasis on national security. However, this section tends to be state-centric and not for the welfare or benefit of all countries engaged in space exploration. The omission of such a benefit is recognisable in light of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space, which emphasise collective international cooperation and collective responsibility between countries while navigating outer space. This is important because even a single mistake while handling space objects or institutions can cause potentially disastrous ramifications.

From the above scrutiny, it can be encapsulated that the lessons learnt from the Outer Space Activity Bill released in 2017, while factors were observed for the withdrawal of the bill, faced backlash from the literati niche of the society and the professionals engaged in this sector and also highlighted the urgent need for the Indian legislation to come up with a national level space law like in other space tycoons like the USA, France and other nations which binds all the minor organs of space administration with one uniform procedural code which all of them have to follow. The bill serves as a reminder that space activities cannot operate in a legal vacuum; it underscores the importance of ensuring clarity on liability, authorisation and supervision to

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safeguard national security and promote responsible conduct in space.

V. A METHODICAL ANALYSIS OF LEGISLATIVE POLICIES: CHANGES TO EXPECT

Expecting The Provisions of India's Impending Space Legislation

The Centre had finalised the Space Activities Bill, which would be a stepping stone for the nation to achieve its 44-billion-dollar space economy. After a thorough analysis of the Draft Space Activities Bill, 2017,[12] upcoming changes can be expected in the new bill.

The Centre could develop an efficient regulatory mechanism to regulate space activities in the nation, which includes the exploration of outer space and stimulating the development of the required potential in the space sector. It could frame policies, develop a comprehensive space activity plan for highlighting the objectives of the development of the space sector, establish required licenses, provide professional and technical support for the launch of space objects, maintain safety regulations, maintain a registry of space objects, investigate space-related accidents and provide compensatory damages and liability.

It could be assumed that these laws are particularly laid down to regulate commercial space activities. There could be separate licenses and requirements for the occurrence of any commercial space activity, which would be consistent with the provisions of international law. The Draft Bill included the establishment of penalties for offences related to the occurrence of commercial space activities without authorisation, licence and compliance with international law. It could be deduced that these activities shall be encouraged by nodal space agencies of our country, encourage the establishment of new startups in the space sector, but they would also be governed by strict regulations to ensure that they don't exercise outside of their jurisdiction.

To elaborate on the upcoming strictness of the bill, the Draft Bill provides for the Centre to investigate the licenses of private agencies in the space sector. It also prohibits the entry of citizens into governmental space establishments unless the person is a public servant. Such policies could be implemented to ensure the maintenance of the privacy and security of projects concerning space activities.

There exist assumptions of collaborations between the Centre and private agencies in launching space projects.[13] This shall encourage public-private collaborations and lead to a surge in investment for these projects, which shall result in the incorporation of the latest infrastructure and technologies for these projects. It shall have an efficient regulatory mechanism and

[12] Draft Space Activities Bill, 2017 (India) (Ministry of Space), https://prsindia.org (published Nov. 21, 2017).
[13] Indian Space Policy, 2023, §§ 3, 4 & 6, Ministry of Space, Gov't of India, https://www.isro.gov.in/media_isro/pdf/IndianSpacePolicy2023.pdf.

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coordination. Just like in the case of Agnibaan SOrTeD, where both IN-SPACe, a public space agency which regulates private activities in the space sector, and Agnikul Cosmos, a private agency in the Indian space sector, both of their collaboration resulted in the successful launch of the world's first rocket with a 3D-printed semi-cryogenic engine.[14]

As mentioned above, the Draft Bill has a provision where the Centre shall provide remedies and liabilities in case of any space accidents. The judiciary could be involved in this area of interest, as it is the sole authority in India to provide remedies in case any wrong has occurred. Earlier cases concerned with space law in India were limited to contractual disputes. Judiciary can also be involved in cases relating to space accidents, data breaches in satellites and negligence in the creation and launch of space objects.[15]

Another issue which is significant for the Centre to address in the upcoming bill is the efficient management of space debris. In layman's terms, space debris is created when any space object of no future use is left in outer space for a long period of time.[16] The new Bill could introduce statutory provisions which provide for the support of efficient space debris management. These provisions could support initiatives which engage in this activity. For example, in 2024, Japanese and Indian startups started studying laser-equipped satellites to overcome space debris.[17]

In such situations, these provisions could provide the legal support and backing to execute such a project and avoid collisions in the orbits. Many scientists have called for the need for an international treaty fit to current standards, and which consists of provisions which effectively regulate the problem of space debris. Centre could provide statutory provisions to regulate efficient space debris management, in accordance with international agreements which mention accurate procedures for performing this activity, like the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space, formulated by the United Nations Office for Outer Space Affairs (UNOOSA).[18]

To expand on contractual disputes between space agencies, the Centre could introduce separate tribunals and quasi-judicial bodies for arbitration and mediation between the agencies during the existence of conflicting interests. This would reduce the court's time and reduce the load of

[14] Press Info. Bureau, *Agnikul Launches World's First Rocket with Fully 3D-Printed Engine* (May 30, 2024), https://www.pib.gov.in/PressReleasePage.aspx?PRID=2022161.
[15] CC/Devas (Mauritius) Ltd. v. Antrix Corp. Ltd., 605 U.S. ___ (2025), rev'g Devas Multimedia Pvt. Ltd. v. Antrix Corp. Ltd., No. 20-36024 (9th Cir. Aug. 1, 2023).
[16] Shivaprakash B., *Space Debris* (U. R. Rao Satellite Ctr. 2023).
[17] Japan-India Startups to Study Laser-Equipped Satellite to Tackle Space Debris, *The Hindu* (Dec. 17, 2024).
[18] Comm. on the Peaceful Uses of Outer Space, *Space Debris Mitigation Guidelines*, U.N. Doc. ST/SPACE/49 (2010), https://www.unoosa.org/pdf/publications/st_space_49E.pdf.

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cases it carries.

As it is known that in this age, Artificial Intelligence (AI) and cybersecurity have been widely used and discussed. To recognise its digitisation potential and to use technological advancements effectively, the Centre could introduce provisions that prohibit satellite communications' interception. International laws like the Constitution of the International Telecommunication Union (ITU) consist of laws and provisions that ensure to maintenance of secrecy and take all possible measures to prohibit satellite communications' interception.[19] These provisions provide the legal support to prevent the disclosure and release of any secret documents and publications to ensure the maintenance of the privacy of important information.

Thus, the Centre could formulate provisions that prevent satellite communications' interception. As it is known, the Global Navigation Satellite System (GNSS) is used to control computer networks and track individuals with precise accuracy. It is often used in transportation, used by law enforcement agencies, and is often used by individuals for malicious purposes.

Hence, the use of GNSS for malicious purposes raises concerns about the invasion of data privacy and the protection of an individual's personal information. Citing an example from international law, i.e., the European GNSS Regulation (Regulation (EU) No 1285/2013), formulated by the European Parliament, it includes provisions that prevent the exploitation of the European satellite systems and GNSS infrastructure for ensuring the existence of security and interoperability.[20]

Thus, the Centre could formulate legislation that prevents the use of GNSS for violating an individual's right to privacy.

VI. INDIA'S FIRST SPACE LAW: A COMPARATIVE OUTLOOK WITH THE UNITED STATES SPACE LAW REGIME

Lessons and Recommendations from The American Space Model

Many countries of the world have their own versions of a national space law that governs space activities within their own borders and within their own jurisdiction. A comparative analysis will be undertaken to examine the United States space law regime, to see if there can be any informed recommendations for any structural or regulatory approaches, particularly with respect to commercialisation and decentralisation of space administration in favour of private

[19] Int'l Telecomm. Union, *Constitution of the International Telecommunication Union* (latest consolidated ed.), https://www.itu.int (last visited Aug. 6, 2025).
[20] Ingo Baumann, Data Protection and GNSS / Earth Observation (presentation at GLIS Global Conf. on Space & the Info. Soc'y, June 9, 2016).

participation.

In India, the recent space law in the country released was the Indian Space Policy, 2023. Just like the U.S. Commercial Space Launch Competitiveness Act of 2015,[21] this policy had a vision of the presence of commercial entities in outer space. Just like the US space laws and legislations, it wanted a peaceful use of outer space and wanted to ensure that space exploration activities resulted in the overall socio-economic and scientific development of the country. Similarities can be seen between the American space policies and the current Indian Space Policy, 2023, where they provide support for the private sector and encourage research and development. Differences can be observed that Indian commercial space framework tends to be more regulatory, as mentioned in the policy, through IN-SPACe compared to the US space sector which tends to be more non-governmental and de-centralized US also has well-established private companies which specialise in space travel and space exploration since the start of the 21st century like SpaceX, Blue Origin, Virgin Galactic and Relativity Space. These companies have been executing their operations way before private corporations in India executed their space activities.

In fact, just five years ago, in 2020, IN-SPACe was established to promote and authorise the space activities of NGEs (Non-Governmental Entities), i.e., private space agencies. The US Government warmly welcomes the private space companies for coming into contracts with foreign companies, and some companies also pursue federal contracts.

A similarity can be found between the US and Indian space laws, in of a strong space institution backing, which can be found in the cases of NASA and ISRO. The constant support and the consistency in the research and development of new space technological innovations by both institutions resulted in both organisations receiving new records and feats.

Coming back to the Indian Space Policy, 2023,[22] the functions of ISRO were primarily assigned to applied research and development. Another similarity can also be found here. Just like how the Congress launched the Land Remote Sensing Policy Act of 1992,[23] this Indian policy also has clauses relating to the land remote sensing system. It states that remote sensing data of GSD (Ground Sampling Distance) of five metres or above shall be made timely available, whereas the data of GSD of below five metres shall be made freely accessible to Government

[21] Space Econ. Acad., *Space Industry India vs. USA*, https://www.spaceeconomy.academy/space-industry-india-vs-usa (last visited Aug. 6, 2025).
[22] Indian Space Policy, 2023, Ministry of Space, Gov't of India, https://www.isro.gov.in/media_isro/pdf/IndianSpacePolicy2023.pdf.
[23] H.R. 6133, 102d Cong. (1992), https://www.congress.gov/bill/102nd-congress/house-bill/6133.

organisations, but at a reasonable price to NGEs.

The main difference here is the vision of the space policies of each nation. The US primarily focused on its space policies during the advent of the Cold War and due to the launch of Sputnik I. It wanted to demonstrate its space-flight capabilities in the midst of an era of proxy wars and nuclear warfare. India primarily focused on its space policies for self-reliance and self-sufficiency. ISRO was formed for the purpose of achieving self-reliance in operating space activities.

Although the US has various national space laws and policies as stated above, India doesn't have "national" space laws like the former. Space law in India is largely governed by government orders and orders issued by nodal agencies like ISRO and others. Only in 2023, the Indian Space Policy, 2023, released. Thus, there are comprehensive and flexible legislative frameworks governing space law in the US, unlike India.

India also doesn't have a specific space force like the US, for the extraterrestrial security of government and private space objects. Unlike the technologies used by the latter, the former uses NavIC (Navigation with Indian Constellation) as its satellite navigation system.[24]

Although both countries have different space law systems, they are both signatories to the Outer Space Treaty of 1967 and have achieved various records in space travel.

VII. Reaching the denouement for the Indian skies and its upcoming attribution for the global space amelioration

Due Need for a National, Efficient Space Law

India has stood at a critical point in its space governance journey, where rapid technological innovations and a rise in private commercial participation have outpaced the need for a comprehensive regulatory framework.

The upcoming Space Activity Bill must not only consolidate existing fragmented policy but also institutionalise mechanisms for licensing, liability, dispute resolution, and commercial participation.

India must at every step at framing policies and legislation should always keep one thing in mind is always to be obliged to international laws and conventions like the OST, Liability Convention, and registration convention, while also maintaining a non-lackadaisical approach towards elimination of space threats that will include debris reduction and proper maintenance of its

[24] Indian Space Research Org., *Satellite Navigation Services*, https://www.isro.gov.in/SatelliteNavigation.html (last visited Aug. 6, 2025).

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equipment in space that might cause damage to other international space players.

A parallel understanding has been drawn with American space law and its respective space administration, which was of great help in deducing that there are lacunae where improvement needs to be done, and their respective space decisions, which sets the American space monopoly apart from the newly emerging international space players.

India must provide a legal scaffolding to elevate its space ambitions beyond economic metrics to strategic autonomy, global leadership in space diplomacy. It has also been discussed in the above paper how the changes of the upcoming bill will be on the basis of the shortcomings in the 2017 attempt to draft a space law, which could have been binding on the ISRO on the basis of the learnings of the previously released bills.

The Indian legislation should mostly focus on giving autonomy to the private entities to perform space-oriented tasks without extending more vigilance, depriving them of the freedom to operate in business terms.

At the end of the paper only crucial lesson for India is to in the midst of the exhibition of impressive achievements accomplished by ISRO there is a pivotal shortcoming which is that India doesn't have a national space law unlike USA who is having a major upper hand in aeronautical competition thus for India to brush up its talent in space law and their hard work should be polished by a proper administration binding organs of space oriented execution within this nation.

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