ILE

MONTHLY REVIEW

VOLUME 1 AND ISSUE 4 OF 2023

INSTITUTE OF LEGAL EDUCATION

ILE MONTHLY REVIEW

(Free Publication and Open Access Journal)

Journal's Home Page – https://mr.iledu.in/

Journal's Editorial Page - https://mr.iledu.in/editorial-board/

Volume 1 and Issue 1 (Access Full Issue on - https://mr.iledu.in/category/volume-1-and-issue-4-of-2023/)

Publisher

Prasanna S,

Chairman of Institute of Legal Education (Established by I.L.E. Educational Trust)

No. 08, Arul Nagar, Seera Thoppu,

Maudhanda Kurichi, Srirangam,

Tiruchirappalli – 620102

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ILE MONTHLY REVIEW

Volume I and Issue IV of 2023

ISBN - 978-81-961828-8-5

Published by

Institute of Legal Education

https://iledu.in

A STUDY ON INTERNATIONAL SPACE LAWS

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Best Citation - AREEJ KHALID, A STUDY ON INTERNATIONAL SPACE LAWS, ILE Monthly Review, 1 (4) of 2023, Pg. 01-06, ISBN - 978-81-961828-8-5

ABSTRACT

In 1919, when International Law was directly recognising each country's sovereignty over airspace directly above their territory, the space laws were originated. The beginning of domestic space programs during the Cold War led to the creation of International Space laws. This was initiated by International Council of Scientific Unions. Treaties on Space work governing the activities of outer space and moon and other celestial bodies have served as the legal constitutional framework and set of principles and procedures to constitute space laws.

INTRODUCTION

The term 'space is often linked with rules & regulations, principles and standards of international law appearing in five international treaties governing outer space. The outer space mentioned here means outer space which have been developed under the auspicious of the United Nations. Many countries despite of having international regulations have national rules and regulations to govern space laws.

Under Space Laws a person addresses a diverse form of matters such as preservation of outer space and Earth environment, liability for damages caused to space objects and liability of damages caused by space objects, sharing information about possible dangers. To guide all the space related activities, a number of fundamental principles have been published by the Space regulating authorities such as freedom to explore outer space without any discrimination.

The Authorities of outer space law, on request of official govt organisations or non governmental organisations, provide all relevant information about the space laws in order to promote acceptance and understanding and implementation of international space laws.

Space laws are mandatorily applicable to all the states. These laws are very similar to International Laws. Just like International Law it also consist of the following elements:

1. International Agreements
2. Treaties
3. International Convention
4. United Nations General Assembly Resolutions
5. Other Rules and Regulations of International Bodies

INTERNATIONAL TREATIES

Six international treaties were negotiated to govern state behaviour in space. These are as follows

Partial State Ban Treaty 1963 -

formally it is known as Treaty Banning Nuclear Weapon Test in the Atmosphere, in Outer Space and Under Water. This treaty prohibited all the nuclear test from happing in the atmosphere or underwater. It only allowed the nuclear weapon test underground. This Treaty was signed by Soviet Union, United Kingdom & United States in Moscow.

Outer Space Treaty 1966 -

It is formally known as Treaty of Principles governing the activities of State in the

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exploration and use of Outer Space, including the moon and other Celestial Bodies. Under this treaty, The United Nations General Assembly, adopted a resolution prohibiting the use of outer space for military purposes. Key provisions of this treaty includes

1. Prohibiting Nuclear Weapons in Space.
2. Limiting the use of Moon & Other celestial bodies.
3. Establishing that space shall be freely explored by all nations
4. Exclude any country who claims for sovereignty over outer space.

The Outer Space Treaty (OST) was a crucial component of the international legal framework for space from the late 1950s to the mid-1980s. It was a central element of a 'network' of inter-state treaties and strategic negotiations that aimed to establish optimal conditions for global security with regards to nuclear weapons.

The OST also enshrined the idea that space is a free zone for exploration and use by all people, and "shall be the province of all mankind". Drawing inspiration from the Antarctic Treaty of 1961, the Outer Space Treaty focuses on regulating certain activities and preventing unrestricted competition that could result in conflicts. As a result, it is not particularly clear or specific about new space activities like lunar and asteroid mining.

Nonetheless, the Outer Space Treaty is the first and most fundamental legal instrument in space law,and its broader principles promoting the civil and peaceful use of space remain the foundation for multilateral space initiatives like the International Space Station and the Artemis Program.

Rescue Agreement 1967 -

this agreement was made with the intent to rescue of astronauts. It is international agreements which talks about rights and obligations of states concerning the rescue of people in space. The agreement was signed in the year 1967.

Moon Treaty 1979 -

By the name itself tells that its an agreement which governs all the activities happening in the moon and other celestial objects. Many scientists considered Moon treaty as a failed agreement because of its limited acceptance whereas others consider it as an easy agreement as it can be easily amended or updated according to the fast pace technology.

INTERNATIONAL CONVENTIONS

Liability Conventions 1972 -

this convention gives claim to the plaintiff when international space objects cause any damage to its territory. Under this convention, only one claim was made by the Canadian Govt when the Soviet's satellite was crashed into its territory.

The seventh article of the treaty grants each state party the privilege of sending objects into outer space, which encompasses the moon and other heavenly bodies. However, if the launched object causes any harm to another state, property or individual, the state responsible will be held accountable by the international community.

Registration Convention 1974 -

under this convention, it orders the state to update with the UN about all the details or the orbit of each space object.

Following are the information that is required by the Convention:

- Name of launching State.
- An appropriate designator of the space object or its registration number.
- Date and territory or location of launch.
- Basic orbital parameters.

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- The general function of the space object.[1]

THE ISS AGREEMENT

All the members of the International Space Station entered into the 1998 agreement which consisted of members of European Union, Canada, Japan, Russia, United States Federation. This agreement provides, among other things, that NASA is the lead agency in coordinating the member states' contributions to and activities on the space station, and that each nation has jurisdiction over its own module. The agreement also provides for protection of intellectual property and procedures for criminal prosecution. This agreement may very well serve as a model for future agreements regarding international cooperation in facilities on the Moon and Mars, where the first off-world colonies and scientific/industrial bases are likely to be established.[2]

The is a result of the collaborative efforts of five countries, namely the United States, Canada, Russia, Japan, and various European member nations. The ownership of the space station is defined under an international treaty known as the International Space Station Intergovernmental Agreement (IGA), which also extends the national jurisdiction of the member states into outer space.

Under the IGA, the equipment and elements provided by the member states are considered subjects of the respective partner states which means that the space station's owners are treated as a single unit, and any property, equipment, or laboratory falls under the jurisdiction of the state that provided it.

National laws are applied in criminal cases, liability issues, cases of intellectual property, and other rights. If any dispute arises, it is resolved based on the established procedures.

The fundamental norms state that the member states have jurisdiction and complete control over their registered elements and equipment and personnel. This applies to anyone in or on the space station who is a national of a member state.

Legal Regulations

The legal framework governing the International Space Station (ISS) is subject to various legal frameworks and obligations pertaining to International Law. The ISS is governed by a number of international agreements and Memorandums of Understanding (MoUs). One such agreement is the International Space Station Intergovernmental Agreement, commonly referred to as the 'IGA'.

The IGA is an international Treaty that was signed on January 29, 1998, with the participation of 15 state governments in the Space Station project. The primary objective of this agreement was to establish a long-term partnership for the construction of a prototype of a civil space station in space, for peaceful purposes only. This agreement laid the foundation for a collaborative effort to develop the ISS as a symbol of global cooperation in space exploration.

FIVE PRINCIPLES AND DECLARATIONS THAT MAKE UP INTERNATIONAL SPACE LAWS

There are five treaties and agreements that make up international space law, which address various issues such as non-appropriation of outer space, arms control, exploration, liability for damages caused by space objects, safety and rescue of spacecraft and astronauts, prevention of harmful interference with space activities and the environment, notification and registration of space activities, scientific investigation, and exploitation of natural resources in outer space.

The United Nations General Assembly has adopted five declarations and legal principles that encourage the exercise of international laws and promote unified communication

[1] https://blog.ipleaders.in/space-law-india/?amp=1

[2] https://web.archive.org/web/20120612054319/http://www.nss.org/settlement/nasa/spaceresvol4/spacelaw.html

between countries. These declarations and principles cover the following:

The Declaration of Legal Principles Governing the Activities of States in the Exploration and Uses of Outer Space (1963) –

The Declaration of Legal Principles that govern the Exploration and Uses of Outer Space, established in 1963, states that all space exploration must be conducted with honourable intentions and made equally available to all States who comply with international law.

No single nation has the authority to claim ownership of outer space or any celestial body. It is required that all activities carried out in space are in accordance with international law, and the respective nations must take responsibility for both governmental and non-governmental agencies involved.

Any object launched into space is subject to its nation of origin, including the people who contributed to its launch. If any object, part, or component is discovered outside the jurisdiction of a nation, it must be returned to its rightful owner. In case a nation launches an object into space, they are accountable for any damages that might occur internationally.

The Declaration also establishes that all space activities must comply with international law, and the nations that carry out these activities must accept responsibility for their actions.

The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (1979)-

The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, established in 1979, aims to encourage space exploration while ensuring that the moon and other celestial bodies are maintained in their natural state for the collective benefit of humankind. This implies that no nation has the right to claim sovereignty over any part of space, and every country should have the same rights to conduct research on the moon and other celestial bodies.

The treaty expressly prohibits any form of weapons of mass destruction, including nuclear weapons, and bases established for military purposes. The resolution allows State Parties to undertake their missions below the surface of the moon or any celestial body, provided that they take adequate measures to prevent contamination.

Any activities in space must be affiliated with a specific nation, and any harm to another country's equipment or facilities must be compensated in full. In the event of any dangerous hazard, such as a radioactive zone, immediate notification is mandatory to the United Nations Secretary-General and the broader scientific community.

In addition, all space missions lasting longer than 60 days must report progress to the UN Secretary-General and the scientific community every 30 days. Any samples collected from space should be made available to the scientific community as soon as possible. However, the treaty does not include meteorites that fall to Earth naturally.

To date, none of the nations that conduct their own space missions have ratified the agreement, indicating that the "Moon Treaty" is likely to be unsuccessful because none of the nations that actually explore space have signed or ratified the treaty.

The Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting (1982)-

The Principles for International Direct Television Broadcasting using Artificial Earth Satellites (1982) state that activities must respect the sovereign rights of States and should aim to promote the exchange of information and knowledge in cultural and scientific fields, support economic and social development, and improve the quality of life of all people while respecting the political and cultural integrity of States. All States have equal rights to pursue

these activities and must take responsibility for anything carried out under their jurisdiction. States planning these activities should inform the United Nations Secretary-General with details of their plans.

The Principles Relating to Remote Sensing of the Earth from Outer Space (1986)-

The Principles for Remote Sensing of the Earth from Outer Space (1986) include fifteen principles that define key terms and concepts. Remote sensing refers to using electromagnetic waves emitted, reflected or diffracted by Earth's surface to improve natural resources management, land use, and environmental protection. Primary data are the raw data acquired by remote sensors on space objects, transmitted by telemetry in the form of electromagnetic signals, photographic film, magnetic tape, or other means.

Processed data are products resulting from processing primary data to make them usable. Analysed information is the interpretation of processed data and inputs of data and knowledge from other sources. Remote sensing activities encompass operating remote sensing space systems, primary data collection and storage stations, and activities in processing, interpreting, and disseminating processed data

The Principles Relevant to the Use of Nuclear Power Sources in Outer Space (1992)-

The Principles Relevant to the Use of Nuclear Power Sources in Outer Space (1992) state that when states launch space objects that use nuclear power sources, they must take measures to protect individuals, populations, and the biosphere from radiological hazards. The design and use of such space objects should ensure a high level of confidence that the risks associated with foreseeable operational or accidental circumstances are kept within acceptable limits.

These treaties and agreements emphasise that all space exploration must be done with good intentions, and are equally open to all states that comply with international law. No nation may claim ownership of outer space or any celestial body, and all countries should have equal rights to conduct research on the moon or other celestial bodies. The use of weapons of mass destruction of any kind including nuclear and bases built for military purposes are banned by the treaty.

All activities in space are required to be attached to a nation, and any damages to other nations' equipment or facilities caused by another party must be repaid in full to that nation. The treaties and agreements also promote international cooperation in the exploration and use of outer space, particularly for the benefit and in the interest of all states, taking into account the needs of developing countries.

INTERNATIONAL SPACE LAWS & INDIA

India has an abundance of scientific research resources and a large population of scientists. The driving force behind the implementation of space law in India was former Prime Minister Jawaharlal Nehru. The United States guided India's space exploration efforts, which began with the launch of small sounding rockets from the Thumba Equatorial Rocket Launching Station in 1975.

India's first satellite, Aryabhatta, was launched on April 19, 1975. The launch of SLV-3 in July 1980 brought India closer to achieving its dream of launching its own satellite. With the launch of Polar Satellite Launch Vehicle (PSLV) on October 15, 1994, India achieved the capability to launch its own satellites. Today, India has specially designed PSLV and Geosynchronous Satellite Launch Vehicle (GSLV).[3]

There have been several contributing factors to India's need for a national space policy. For example, rubble from an ISRO satellite fell on a Japanese fishing village, rockets malfunctioned on the launch pad and damaged other payloads from multiple countries, and India was

[3] https://blog.ipleaders.in/space-law-india/?amp=1

held responsible for any accidents that occurred with the launch of the massive 104 satellites. Antrim Corporation, ISRO's commercial arm, is increasingly focused on becoming a launch service provider, highlighting the need for a clear national space policy. India has the potential to join leading nations in resource gathering from space, but it needs a defined position and the ability to handle legal issues to achieve this goal.

The 1967 UN treaties on space are no longer capable of addressing the challenges posed by the weaponisation of space, and India needs to consolidate its position as a global space power that has already reached Mars. India has always explored space in a peaceful manner and has the potential to become a major advocate for demilitarisation during this era of killer satellites. However, if India wants to encourage private investment in this sector and move beyond its government monopoly on space, it must have a clear space law in place. ISRO would be able to focus on more far-reaching endeavours beyond day-to-day satellite launches.

Current proposals include industrial zones near the space port on Sriharikota and in the city. With 100% FDI planned by the government, this could be the next big wave to capture the imaginations of citizens, businesses, investors, and researchers.[4]

CONCLUSION

Space laws refer to the branch of law that governs activities related to outer space. This includes all national and international conduct within outer space. Unfortunately, the Republic of India currently lacks legislation pertaining to space and space-related matters. To address this issue, Indian legislation should cover legal issues related to launch services (space transportation systems), satellite telecommunications (including satellite broadcasting), earth observation services (including processing and distribution), satellite steering systems, and property rights.

Recently, in late 2022, the Office for Outer Space Affairs launched a new database called Accessing Space Treaty Resources Online (ASTRO). This platform serves as a database for international space instruments, including the five United Nations treaties on outer space and their ratification status, as well as principles adopted by the General Assembly.

Due to the novelty of space-related issues compared to other legal matters, India still lacks sufficient and appropriate space laws. However, India is currently in the process of forming new space laws and proposing laws regarding outer space. The need for space laws is crucial in today's world where disputes arise on every single issue, thus requiring laws to govern activities in outer space. Although many other countries have their own space laws, India cannot rely solely on international treaties. Therefore, more and better space laws are necessary for India's future.

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