

TERRITORIAL SOVEREIGNTY IN THE OUTERSPACE: SPATIAL ISSUES

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Abstract

“Man must raise above the earth-to the top of the atmosphere and beyond—for only this will fully understand the world in which he lives.”

—Socrates

This famous aphorism though laid down about centuries ago is verbatim true that sovereignty is essential for the defense and security of a state, acclaimed by the Chicago Convention.¹ That talked about the freedom of aerial navigation for commercial, scientific and humanitarian purposes. To reconcile these conflicting needs the concept of functional sovereignty cannot be discarded. It is a high time to set the definition and to set delimitation of air space and outer space. Sovereignty is the stamp of a legal personality of statehood and no one can interfere in the matter of internal affairs, in fact state have an absolute jurisdiction on its affairs. *Bashkirian Airlines v. Federal Republic of Germany*, 2006 is the case related to sovereignty issue.

The explorations are the concerns of socio-political-economic and technological enhancement, but the man made boundary marks baffled this issue which has metamorphosed from a techno legal challenge into economic and political imbroglio. Airspace is not the monopolistic area of any nation. Every nation has the right to expand its' techno-scientific and remote sensing and satellite technology to explore new hidden facts of celestial world. This paper is an attempt to fix the vertical and spatial limits and bounds of nations and the sovereignty issues of airspace and outer space. It will also highlight the upcoming challenges to developing countries like India in the jet age.

I. Introduction

“We live on the shores of this tiny world, the third planet of nine, circling an average star, the Sun. This star is just among billions in a great city of stars, the Milky Way, itself just one among a billion other stellar cities stretching on perhaps forever. This Universe is more vast than all imagining, and filled with wonders more than we can dream, is a heritage for all mankind.”²

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It is a very puzzling issue that which State all over the world can exercise the territorial sovereignty over air space and outer space. Though the question of air space territorial limits is whoever resolved by the various treaties and mutual agreement by the concerned States all over the globe, but the issue of outer space territorial sovereignty is still an unshackles agenda. There is no customary rule of international law in regard to giving innocent passage through the territorial air space.

Edward Collins has aptly said, "States have complete legal control over the airspace over their territory, other States have only rights in it as are acquired of treaty. There is no customary right of innocent passage through territorial airspace....."³

There are two views for the division, definition and delimitation of air space and outer space. The repercussions on the territorial sovereignty are the time immoral issues. But in the arena of the advanced technological and scientific age, there is a dire need to over emphasize on the practical and legal necessity to define the legal boundaries between the air space and outer space.

II. Concept Of Territorial Sovereignty

Territorial sovereignty is an important and inseparable aspect of Statehood. A State cannot be called as sovereign if it does not have absolute control over its territory. Under this domain, the State can exercise exclusive jurisdiction over persons and objects. Other States have no right to interfere. The unauthorized landing made by spacecraft can violate territorial sovereignty of a State. The term 'territorial sovereignty' signifies that within this territorial domain jurisdiction is exercised by the state over the persons and property to the exclusion of other states. This concept bears some resemblance to the patrimonial notions of ownership under private law, and in fact International law adopted many of the civil principles of the property in their treatment of state territorial sovereignty. To this day, their influence has persisted so that in particular the rules as to acquisition and loss of territorial sovereignty plainly reflect the influences of civil law.⁴

State sovereignty over airspace and territorial waters is a fundamental principle of international law. In certain circumstances States agree to relax their claim to sovereignty. However if none of the conditions are satisfied, there is violation of the State's sovereignty. If the violation of a State's sovereignty is because of 'national activities of another State, then that State whose activities have violated the sovereignty is held responsible under international law.⁵ "Outer space,... the moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies."⁶

In the case of *Island of Palmas Arbitration* between Netherlands and United States Judge Huber summarily defined territorial sovereignty in terms of the

existence of rights over territory rather than the independence of the state itself or the relation of persons to persons. It was remarkably held that:

“Sovereignty in the relation between the States signifies independence. Independence in regard to a portion of the globe is the right to exercise therein, to the exclusion of any other State, the functions of a State.”⁷

The development of national organization of States during the last few centuries and, as corollary, the development of international law, have established this principle of the exclusive competence of the State in regard to its own territory in such a way as to make it a point of departure in settling most questions that concern international relations.⁸

Territorial sovereignty in *Corfu Channel* case explained that something which involves the exclusive right to display the activities of a State. This right has a corollary duty: the obligation to protect within the territory the rights of other states, in particular their right to integrity and inviolability. It is a way of contrasting ‘the fullest rights over territory known to the law’ with certain minor territorial rights.⁹

III. Mandates Of Various The Outer Space Treaties

Outer Space may be described as the area of the universe where the atmosphere of the earth ends. Where aerial sovereignty ends, outer space begins. It includes all space above the lowest perigee achieved by any satellite put into orbit. Celestial bodies and the moon also form parts of the space.

Space law, agreements concerned with the regulation of the exploration and use of outer space, developed since the first launching (1957) by humans of a satellite Sputnik into space. Space law is an aspect of International law, has developed under the aegis of the United Nations.

The Space Treaties do not expressly and explicitly permit space objects to pass through the territory of other States or to make an unauthorized landing. The logic behind the fact is that the Outer Space Treaty is premised on equality of access to outer space is insufficient to prove that territorial sovereignty has been relaxed to cater for the over flight of space objects. Article-4 of the Rescue Agreement only imposes an obligation to rescue and return downed astronauts. It does not prevent the State from obtaining reparation for a violation of sovereignty.

UN Declaration (1963) explained that the exploration and use of outer space would be for the benefit and in the interest of all people of the universe at unanimous footing ; that no sovereignty could be claimed in space; that objects and persons launched into space would be returned promptly and safely if they landed in a foreign country; and that nations launching objects would be responsible for damages caused by them.¹⁰

In 1967,¹¹ a general treaty embodying these principles and adding a prohibition on the military use of space and a provision for the inspection of

installations on celestial bodies went into effect. A UN treaty on use of the moon's resources was drafted in 1979. The boundary between airspace, which is subject to sovereignty and outer space, remains an object of discussion. Some favour definitions based on the composition of the atmosphere and others favour a functional approach; thus, if commercial airlines use a particular layer of the atmosphere, it is to be considered airspace.¹²

The Charter of United Nations recognizes the principle of territorial sovereignty in Article 2 (4). This Article reads as follows:

"All members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the Purposes of United Nations."

Any State, if makes an unauthorized landing, in the territory of another State can be said to use force against the territorial integrity of the State in which it has landed. Hence, it can be concluded that the State, which has made unauthorized landing has violated the laws of territorial sovereignty of the concerned State.

Liability of a State as far as violation of territorial sovereignty is concerned can be established on many principles. When a spacecraft makes an unauthorized landing, territorial sovereignty can be violated as regards to the airspace or as regards to airspace and territorial waters (if the landing is made at high seas) both.

The Outer Space Treaty solidified the concept of no claim of sovereignty in outer space. It states unequivocally, "Outer space.....is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means." Airspace differs from outer space where international law generally forbids a subjacent country from asserting sovereign authority. Thus by very nature of space travel, the Chicago Convention is not applicable. Hence, a State violating the Chicago convention will not be held liable for the violation of the territorial sovereignty. The pith and substance of the Outer Space Treaty waxes very eloquent as defined in Article 1, 4 and 7.¹³

IV. The Liability Treaty

The liability convention has been ratified by 84 States and signed by a further 24 as of January 2006.¹⁴ The basic law of the liability convention is at Article II and III as:

"A launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the earth or to aircraft in flight."

In the case of damage being caused elsewhere than on the surface of the earth to a space object of one launching State or to persons or property on board such a

space object by a space object of another launching State, the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it is responsible.

The liability convention enhances a few little niceties as traditional barristers are familiar with such as a one-year limitation period, an international arbitration process, and:

“Nothing in this Convention shall prevent a State, or natural or juridical persons it might represent, from pursuing a claim in the courts or administrative tribunals or agency of a launching State.”¹⁵

V. The Moon Treaty Of 1979

The Moon Treaty has been an abject failure, signed and ratified by a handful of smaller nations, which do not, in any event, conduct any space exploration.

A science fiction-like conspiracy theory exists in international law that a society known as “L5” lobbied the US government to reject the Moon Treaty in 1980, denying the Treaty with the support of the superpower, and effectively killing it. It has been reported that L5, an organization devoted to extraterrestrial colonization, was vehemently opposed to the Moon Treaty’s prohibition against private property rights in outer space.¹⁶

Moon Treaty is still on the books and available for signature. Although it is called the Moon Treaty, the proposed treaty is far more extensive purports to apply to all “celestial bodies within the solar system”.

The Moon Treaty purports to prohibit the use of “celestial bodies” for military purposes and that further, “use of... celestial bodies... shall be the province of all mankind and shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development”.

VI. Multi-Dimensional Approach Of Territorial Sovereignty In Air Space And Outer Space

(A) Limited Applicability Of Airspace Law With Regard To The Sovereignty

Article 1 of the Chicago Convention boldly declares that:

“Every State has complete and exclusive sovereignty over the airspace above its territory. While this statement seems to give State absolute rights over its airspace, the article is not without its exceptions. A State only has exclusive sovereignty “over the airspace” above its territory. If the landing is made at the sea, then the territorial sovereignty of the State is not violated. For a State to prove the violation of its territorial sovereignty, it is necessary to show that the spacecraft landed in the territorial waters of the State.”

(B) Exception To The Sovereignty In Outer Space

As Professor De Saussure explained:

“No nation protested the orbiting of Sputnik over its territory and the first freedom, the freedom of over flight became established with that launch. The absence of any objection from the other States meant that the orbiting of satellites around the earth was not a privilege but a right given to all nations.”¹⁷

Sputnik I solidified the inapplicability of the Chicago Convention to space. The Outer Space Treaty solidified the concept of no claim of sovereignty in outer space. It was observed that:

“Outer space.....is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means. Airspace differs from outer space where international law generally forbids a subjacent country from asserting sovereign authority.”¹⁸

Hence, a State violating the Chicago convention will not be held liable for the violation of the territorial sovereignty. The Chicago Convention is not applicable in space travel.

VII. Astronauts’ Space Activities For Mankind

The entire jurisprudence behind the rescue agreement aims at the safe and prompt return of astronauts. Further, they should be treated as envoys of mankind. Conclusively, it can be said the entire objective is the benefit of the astronauts. Such benefits clearly stand upheld if the state of nationality of the astronauts is granted *locus standi* to ask for the astronauts. NASA is the best example of such activities.

An envoy of mankind is a very elaborate term. It has never been used as such in any of the cases. But it is a space law obligation to treat astronauts as envoys of mankind. Rescue Agreement confirms this point. It is the duty of the Court to interpret the word in its natural and ordinary sense. But since no case as such as arisen in which importance of these words is in question, not much weight is given to them except the fact that they are there in Rescue Agreement and Treaty on Principles Governing Activities of States in Exploration and Use of Outer Space, including Moon and other Celestial Bodies.¹⁹

Space activities are accepted as benefiting all mankind and it is in the legal interest of all States that the astronauts are not prosecuted for landing in territorial waters. This is because the spacecrafts landing in unintended locations is also an acknowledged possibility in space law. In the age of new discoveries and inventions, outer space issues are also full of various challenges that, includes the rapid growth and change in commercial space-launch services, increasingly important issues of international trade in space-related goods and services, the expansion of space-based communications services, these have

forced the jurist to the move to rethink for the betterment of 'the common heritage of mankind.'

VIII. Violation Of Territorial Sovereignty vis-à-vis Unauthorized Landing

Article VI of the Treaty Governing the Activities of States in Exploration and use of Outer Space, including Moon and Other Celestial Bodies states that:

States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the Moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty. When activities are carried on in outer space, including the Moon and other celestial bodies, by an international organization, responsibility for compliance with this Treaty shall be borne both by the international organization and by the States Parties to the Treaty participating in such organization.²⁰

Article-3 of the 1968 Astronauts Agreement applies to astronauts who have 'alighted on the high seas or in any place not under the jurisdiction of any State.' 'Those contracting parties which are in a position to do so shall, if necessary, extend assistance in search and rescue operations of such personnel to assure their speedy rescue.' In reply to a question from a representative of Brazil, the United States representative explained: 'it was not the intention of Article 3 to impose an obligation to assist in search and rescue operations on countries in geographical vicinity to the aircraft which had alighted on the high seas or on any other place not under the jurisdiction of any State. It was intended mainly to allow for the possibility of the contracting party's ships being near the scene of accident and therefore in a position to help with the rescue.'²¹

IX. Return Of Astronauts

If astronauts land in the territory of contracting State or have otherwise been recovered by it, they shall, under Article- 4, 'be safely and promptly returned to the representatives of launching authority.' In as much as the 1967 Space Treaty requires its contracting parties to return astronauts to the State of registry of space craft a State party to both treaties can be faced with conflicting treaty obligations. The possibility of returning the astronauts to representatives of the launching authority instead of launching authority itself, on the other hand, greatly facilitates the task of territorial State.²²

X. Assistance To And Return Of Astronauts And Return Of Objects Launched Into Space

The problem of assistance to return of astronauts is one to which the Soviet Union attaches a great deal of importance. Early in 1962 in reply to a message

from President Kennedy, Mr. Khrushchev proposed, in addition to a general treaty on space, the conclusion of special agreement on the subject, and a Soviet draft on this effect was introduced before the Legal Sub Committee on 6 July 1962. The draft applied also to the rescue of the space ships.²³

Further, Article VIII defined objects launched into space provides as:

“Such objects or component parts found beyond the limits of the State Party to the Treaty on whose registry they are carried shall be returned to that State Party, which shall upon request, furnish identifying data...”

Thus the Agreement on the Rescue and Return of Astronauts and the Return of Objects Launched into Outer Space were brought to a successful conclusion on 15th December 1967, and the Draft agreement received the unanimous commendation of the General Assembly on 19th December. It was opened for signature on 22nd April 1968.

XI. Common Heritage Of Mankind

The idea of the “common heritage of mankind” is to some degree also reflected in the legal framework for the protection of the environment of Antarctica where reference is made to “the interests of all mankind”. The concept to this area would, however, at a minimum require the extinguishment of all national claims and the establishment of a more universal regime of administration and control. Such a development does, at least at present, not seem to be in sight. On the other hand it is obvious that key elements of the Antarctic Treaty of 1 December 1959 such as peaceful international cooperation for scientific research and environmental preservation have inspired the new legal regime for the oceans as well as the law of outer space.²⁴

India once again strongly advocated the application of the common heritage, principle to the Moon and other celestial bodies, their subsoil as well as their resources.

XII. The Outer Space Treaty And Space Security

It is becoming more difficult to guard against casualties in outer space. All space technology is dual-use; however, the capabilities of dual-use space based technologies are increasing and can be used directly for a range of space system protection and negation purposes. On the one hand, newer, more adaptable technologies such as small satellites are facilitating more active space system defences. Small satellites can provide key protection capabilities such as on-orbit servicing, greater maneuverability in space, in-orbit space surveillance, faster hardware replacement in the event of satellite failure, and clusters of defensive satellite configurations. On the other hand, the same benefits of size and maneuverability can also support more active negation activities. Small satellites are easy to hide and difficult to detect. They can be discreetly released into orbit, approach other satellites and cause physical harm.²⁵

XII. Conclusion And Suggestions

While this field of the law is still in its infancy, it is in an era of rapid change and development. Arguably the resources of space are infinite, and limited only by our ability to use them in a manner that is fair and equitable to all nations and which is environmentally ethical. If commercial space transportation becomes widely available, with substantially lower launch costs, then all countries will be able to directly reap the benefits of space resources. In that situation, it seems likely that consensus will be much easier to achieve with respect to commercial development and human settlement of outer space.

High costs are not the only factor preventing the economic exploitation of space: it is argued that space should be considered as a pristine environment worthy of protection and conservation, and that the legal regime for space should further protect it from being used as a resource for Earth's needs.²⁶

India's concern is to keep outer space a zone of peace and tranquility. Evidently, ISRO being a civilian research agency with a mandate to explore and exploit outer space for peaceful uses, cannot openly associate itself with project focusing on the development of an anti satellite device. But then DRDO will be in a position to make use of the technologies developed by ISRO to give a quickening impetus to the development of a killer satellite system. Chemical fuel, navigation as well as control and command systems are among the hardware that are common to both a satellite launch vehicle and a missile. However the hitting accuracy of a missile should be more precise than that of a launch vehicle.²⁷

The concept and need for a global policy for the space age like an International organization is necessary. Such a policy shall guide states in the discharge of their responsibilities for future success and establish a stable system of law and order in the outer space.²⁸ It highlights the legal foundation upon which outer Space laws are founded and explores the emergence and evolution of the concept of Outer space as territorial sovereignty.

The exploration and use of outer space would be for the benefit and in the interest of all people of World. No sovereign could be claimed in space; that objects and persons launched into space would be returned promptly and safely if they landed in a foreign country; and that nations launching objects would be responsible for damages caused by them.

Country like India needs a more comprehensive air and space surveillance and identification capability. The detection and identification of objects penetrating or orbiting over Indian Territory are critical functions that must be performed if our nation wishes to remain sovereign.

Therefore the future of public order of space is heavily dependent upon cooperation among States both at multilateral and bilateral level²⁹—xxxxxxxxxxxxxx. Thus for the economic enhancement, enrichment of knowledge, explorations for the humanity purposes, for the peaceful enjoyment of nuclear

power and for the betterment of education in the countries like India, there should not be any restraints on the name of territorial sovereignty in the outer space.

Endnotes

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2. U.N. Chronicle, Vol. xxix, No. 4 (December, 1992), p. 49.
3. Edward Collins, International Law in a Changing World, p. 173.
4. Territorial Sovereignty of Nation States vis a vis Unauthorized Landing and Space Law Obligation to treat Astronaut of Mankind, by Mridushi on March 21, 2010 jurisonline.in/.../territorial-sovereignty-of-nation-states-vis-a-vis-unauthorized-landing-and-space-law-obligation-to-treat-astronauts-as-envoys-of-.
5. *Ibid.*
6. Article 1 of The Outer Space Treaty.
7. *Netherlands v. U.S.*, (1928) 2 R.I.A.A. in Territorial Sovereignty of Nation States vis-a-vis Unauthorized Landing and Space Law Obligation to treat Astronaut of Mankind, by Mridushi on March 21, 2010 jurisonline.in/.../territorial-sovereignty-of-nation-states-vis-a-vis-unauthorized-landing-and-space-law-obligation-to-treat-astronauts-as-envoys-of-.
8. *Ibid.*
9. Corfu Channel Case, International Court of Justice Rep. (1949) p.23, Territorial Sovereignty of Nation States vis-a-vis Unauthorized Landing and Space Law Obligation to treat Astronaut of Mankind, by Mridushi on March 21, 2010 jurisonline.in/.../territorial-sovereignty-of-nation-states-vis-a-vis-unauthorized-landing-and-space-law-obligation-to-treat-astronauts-as-envoys-of-.
10. *Space law*: Information from Answers.com, www.answers.com/topic/space-law.
11. The Outer Space Treaty, like virtually all international law treaties, this one has a very long name ("Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies") and lofty but somewhat naive aspirations.

Its preamble refers to the "common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes" and that the "exploration and use of outer space should be carried on for the benefit of all peoples irrespective of the degree of their economic or scientific development". The Outer Space Treaty is

considered the granddaddy of space law. Several of its component parts have been expounded upon in subsequent treaties specific to certain issues available at

<http://www.duhaime.org/LegalResources/InternationalLaw/LawArticle-182/Space-Law.aspx>.

12. *Space law*: Information from Answers.com, www.answers.com/topic/space-law.
13. "The exploration and use of outer space, the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.
 "Outer space,... the moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies."
 "States Parties to the Treaty undertake not to place in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner."
 "Each State Party to the Treaty that launches or procures the launching of an object into outer space... and each State Party from whose territory or facility an object is launched, is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in outer space available at
<http://www.duhaime.org/LegalResources/InternationalLaw/LawArticle-182/Space-Law.aspx>.
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15. <http://www.duhaime.org/LegalResources/InternationalLaw/LawArticle-182/Space-Law.aspx>.
16. www.nss.org./events/menu.html.
17. *Supra* note 3.
18. *Ibid.*
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20. *Ibid.*

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22. Hall R.C. 'Rescue and Return of Astronauts on Earth and in Outer Space', (1969) 63 *American Journal of International Law* 197.
23. *Ibid.*
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28. Bhatt, Legal Controls of Outer Space, (1973) p. 289.
29. Surya P. Sharma, International Law of the Outer Space: A policy oriented study. L.J.I.L. Vol. 17 (1977) p. 185 at p.501.