
INTERNATIONAL JOURNAL OF ADVANCED LEGAL RESEARCH

OUTER SPACE PATENTING- IS THE WORLD READY OR IS IT TOO SOON- Nipun Bansal¹**ABSTRACT**

“Great minds don't think alike. If they did, the Patent Office would only have about fifty inventions”

~Scott Adams.

It looks like the people responsible for formulating legislation for patent regulation for outer space inventions believe in this quote as to this date there is no definitive international treaty or legislation regarding this matter. It is known to man for a fact that outer space exploration is a repercussion of intellectual developments and creations, so why not regulate any creation made on any such celestial body under such laws which govern intellectual creations on Earth. This research paper might not be an Alpha to Omega of the problem at hand but it will attempt to answer some important questions pertaining to this topic like – What is the need of legislature governing outer space creations, what will happen if creators right is infringed in space, What is the stand of Indian Government on this topic, what are the current laws governing such inventions, is ‘Flags of Convenience’ applicable in outer space.

Introduction

In 1954, Mr. Edward. R. Murrow the inventor of the polio vaccine said that *“Well, the people, I would say. There is no patent. Could you patent the sun?”* When he was asked about who has the patent of his vaccine”. It seems like days of such generosity are over as inventors these days are deservingly keen to patent their inventions and make a fortune out of the same. Similarly the private companies involved in making outer space technologies are already making big claims about achieving big feats like sending people in outer space and say they can achieve this with a little support from the International and Domestic laws which govern their actions and

¹ Student of Amity Law School, Noida

workings. Space X is already confident enough to make bold claims like; they will be ready and well equipped to help mankind colonize certain habitable planets in our Solar System by providing cutting edge technology which will allow them to mine the surface of these celestial bodies and extract rocket fuel out of it in a year².” *Necessity is said to be the mother of all creations and the patent office is known as the mother in law of such creations and inventions*”. The urgent need to comply with outer space inventions under IP laws is not less than a necessity, as each passing day there are private sector companies like Space X and Blue Origin venturing onto these celestial bodies with their own rockets made from their own resources.

It is a known fact that it is not the object which is patentable rather it is the process that is involved in making that object which is patentable by law. Now the patent experts are accentuating on the fact that whether the patent laws are ready to face such a predicament that whether a company which is going to operate outside the boundaries of Earth be allowed to patent a technology that will wholly and solely be used on other planets and also how or where such companies will appeal if there is an infringement of such rights. It is true that finding answers to these questions is not going to be uncomplicated, but the way mankind is busy making leaps in outer space technology, it is surely one of the major talking points for our generation of lawmakers to ponder over in their minds.

LAWS GOVERNING OUTER SPACE

There is no codified law solely based on dealing with inventions related to outer space technology rather it is mostly governed through the interpretation of the major treaties and case laws if any. Outer space is often referred to as a “common heritage for mankind” and the legal reasoning behind the veracious nature of that statement is the resolution 1721 passed by the United Nations in 1961, which deals with the fact that outer space is free for all to explore and is to be used in compliance with the international laws which govern the state’s functioning on Earth³.

Now let’s look at the 5 major outer space conventions and treaties from which most of the international space law is based on, they are as follows -:

² Intellectual Property in Space, IP Laws India, <http://www.iplawsindia.com/ip-in-space>

³ Krishanu, *IPR Protection in Outer Space*, Legal Service India <http://www.legalservicesindia.com/article/790/IPR-protection-in-outer-space-activities.html#:~:text=In%20this%20proposal%2C%20the%20total,code%20as%20%E2%80%9Cspace%20Patent%E2%80%9D.&text=India%20is%20a%20party%20to,body%20of%20international%20space%20law.> .

For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>

1. The Outer Space Treaty, 1967
2. The Rescue and Return of Astronaut Agreement, 1968
3. Convention on International Liability Caused by Damage Space Objects, 1972
4. Registration Convention, 1975
5. Moon Treaty, 1979

Out of these the most influential ones when it comes to the ambit of patentability of outer space creation is the Outer Space Treaty, the Moon Treaty, Registration Convention, 1975. As Outer Space Treaty in its Article III states that both governmental and non- governmental bodies can use the celestial bodies only when they comply with the International Laws and Charter of United Nations as outer space law is considered as a 'Lex Specialis' of International law⁴. Also, under Article VI of the treaty, it is mentioned that the State will be held responsible for both governmental or non- governmental occurrences in outer space. The State is also accountable for supervising and regulating activities of non- governmental companies in outer space.

According to the Registration Convention, 1975 the launching country must register the object being launched in outer space. This is done to show cause that the country under which such spacecraft is registered is the real owner of any such patents which are being developed for making it function on Earth and will continue to be the owner of the same when such spacecraft is launched in outer space.

Now let's take an example of the International Space Station which was a creation of the Inter-Governmental agreement between different countries, wherein scientists and other experts from different fields and from different countries work together to bring forward certain medicinal and technological advancements. It is further said that the signed agreement between European Nations states that if an invention takes place on premises of ISS then the nationality of the inventor will not be considered important, rather the country on whose territory or part of the station the invention in question was developed will be considered for levying its territorial patent laws⁵.

INFRINGEMENT OF CREATOR'S RIGHT IN SPACE

The Registration Convention, 1975 has many loopholes when it comes to the practicality of the

⁴ *Space Law*, United Nations Office for Outer Space Affairs,
<http://www.unoosa.org/oosa/en/ourwork/spacelaw/index.html>.

⁵ Pankhuri Aggarwal, Is the Discussion on Patent Laws in Outer Space Inventions Really All That Relevant?
<https://spicyip.com/2018/05/spicyip-fellowship-2018-19-is-the-discussion-on-patent-laws-for-outer-space-inventions-really-all-that-relevant.html>.

situation at hand of providing the creator of patent with proper redressal procedure if their rights get infringed. As the convention doesn't take into consideration the fact that many corporate register themselves in countries in which the patent laws are weak and also they see a scope for development. Now when an infringement happens in this case the private company claims to file the suit for infringement in the country where they have obtained a patent, but what will happen if the state of the company which has infringed such rights of the creator does not recognize their actions as infringement in their parent countries patent laws. This problem is identical to the one which creators face on Earth too; as patent rights are territorial rights which means that it is mostly applicable in the territory which they originally obtained the patent in.

The experts who are debating about this issue are proposing a single jurisdiction for outer space laws that will be responsible for granting patents and take adequate action if the rights of the creator are infringed by any other governmental or non- governmental organization. This will also be effective in dealing with objects launched in space, and are not expected to return on Earth's soil as they are programmed to function outside Earth's atmosphere⁶. Having one single body registering and adjudicating all patents will help in assigning global accountability to companies and governments alike. The only problem this solution has is that granting patents on a global level defeats the moral rights of other creators.

Only the United States of America has come forward with a designated section for outer space incidents in their patent laws. This was a great move by the United States government as this will allow them to protect inventions made in space on US spacecraft by governmental or non-governmental bodies from infringement and grant them protection under their own stringent domestic patent laws. Other countries should either follow in their footsteps or initiate the debate at an international level so that a unanimous decision on the same can be taken by different states.

Doctrine of Temporary Presence and Flags of Convenience

The expression "flag of convenience" alludes to the act of enrolling a boat in a nation not the same as that of the boat's owners just to reduce the working expenses and to avoid burdensome regulations. The Outer Space Treaty laid the framework for the same, as 'Flag of Convenience' for activities on other celestial bodies by the government and private sector is allowed under

⁶ Vidushi Bhardawaj, *Patents beyond land: applicability and infringement of inventions in outer space*, Lex Orbis (03.08.2019), <https://www.lexology.com/library/detail.aspx?g=0c05ddc6-38ec-45c7-8d7b-2e1706e6a200>.

this treaty, making the nation of enrollment the basis for applying national laws to space objects. Under the 1975 Convention on the Registration of Objects Launched into Outer Space, which actualizes the Outer Space Treaty's enrollment necessities, that a space object must be enlisted by the "launching state" which means that either the nation that secures the starting of the space object or the nation from which the space object is dispatched?⁷ This allows the private corporations to launch their spacecraft from a country which they think will be best for them keeping in mind the patent development opportunities there and also how effective their infringement redressal procedure is, that poses a new problem as in relation to marine law a cargo leaves one country's port and reaches the other country's port where such country has the option of either accepting the cargo or rejecting it as per their patent laws. Now in the case of space, there is no 'decided destination' so the company is totally reliant on the laws of the 'launching state'⁸ and if the state has weak patent protection laws then their invention is at risk of being exploited and misused by other governmental or non-governmental entities.⁹

Doctrine of Temporary Presence is the only Gilmour of light in a dark future ahead for Indian space activities if the patent laws don't change in the near future. Under section 49 of the Indian Patent Act, 1970 it is given as an exception to patent infringement which allows vessel or an airplane enrolled in other nation to utilize a protected invention in India on their board if there should be an occurrence of emergency then it can be used or with the purpose of construction or working of the vehicle while being inside the Indian domains. This exception can certainly develop into a real-life saver to the people on board a spacecraft in an emergency. The interpretation of the Indian Patent Act at this point of time has no bonafide use of this section for regulating outer space laws.

Space Laws in India

India has a black hole size lacuna in its legal system similar to the majority of other nations

⁷ Lyall & Larsen, *supra note 1*, at 94, *Organization For Economic Co-Operation and Development*, Space 2030: Tackling Society's Challenges (2005)

⁸ Matthew J. Kleiman, *Patent rights and flags of convenience in outer space*, *The Space Review* (07.02.2011), <https://www.thespacereview.com/article/1772/1#:~:text=Once%20an%20object%20is%20in,expense%20and%20time%2Dconsuming%20process.>

⁹ Lex Orbis, *Patents Beyond Land: Applicability And Infringement Of Inventions In Outer Space*, Mondaq (05.08.2019) [https://www.mondaq.com/india/patent/842270/patents-beyond-land-applicability-and-infringement-of-inventions-in-outer-space.](https://www.mondaq.com/india/patent/842270/patents-beyond-land-applicability-and-infringement-of-inventions-in-outer-space)

For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>

when it comes to talking about making stringent and reliable laws for outer space. On an international level, it is a good sign that India is a party to all the major conventions related to space law i.e. The Outer Space Treaty, 1967 and the Registration Convention, 1975, etc. The cherry on the cake is that India is also following all the U.N Assembly guidelines or principals regarding the promotion of international cooperation between different nations, keeping peace in outer space, which mostly relates to agreeing with the implication of International law in outer space.

Now all the regions which legitimately or by implication identified with space activities under the Indian Constitution fall within the area of the Union by virtue of a progression of sections in List I of the seventh schedule of the Constitution . Consequently, it is for the Parliament of India to make its first stride towards instituting a law for space activates, with the end goal of formulating a viable guideline of different parts of India's strategy to rule in the market of outer space patent in the near future. Considering the recent success of India in space there is an urgent need to formulate a basis for interdepartmental functions so that the development of this sector doesn't get lost in red-tapsim. Also, the Antrix Corporation (Government-owned company) have stepped up their pursuit in making India a dominant player in the wake of the recent trend of commercialization of space technology which requires a strong and rigid backbone of IPR laws which can protect such Indian creations if they are sold or transferred worldwide¹⁰.

CONCLUSION

It is common knowledge that space law is not only beneficial to humans in its dream to better understand other celestial bodies, but it also aids them in bringing forward technological advancements which has helped the people of Earth in the past-like camera phones, CAT scanner, identifying Prospective Fishing Zones, etc. So, it is a no brainer that such inventions must be protected in outer space too by formulating a singular harmonized legislation of Intellectual Property Law throughout the world which is on its own capable enough to handle patent infringement's relating to matters under outer space law. This will help to curb the problem of private companies using weak patent laws of a country to their advantage as one law will hold them accountable and punishable of the offenses that they commit.

¹⁰The Hindu, *Space Commercialization, Manifest IAS* (23.08.2019), <https://www.manifestias.com/2019/08/23/space-commercialization>.

At this point of time, patent laws of different nations dealing with territorial jurisdiction in their region and on an international standpoint are not up to standards so the problem of strengthening space laws comes later first, local IPR laws of such States must be improved to protect the moral rights of a creator for their inventions on Earth. This problem of International Patenting might not seem to be of an immediate nature when we look at it in hindsight, as colonization of outer space is still a dream for human kind, but when the time comes in the future it will be better if the world deals with this in a prepared and ready manner so that no undue advantage of this vast space above us is taken by one corporation. The concerned International Committees and States must get pondering on the topic of unified space legislation to avoid colonization of other celestial bodies made possible by private organizations who will end up taking advantage of weak patent laws in some countries before the World War 3 happens which is a real possibility.



For general queries or to submit your research for publication, kindly email us at editorial@ijalr.in

<https://www.ijalr.in/>