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THE SHIFT TO CAPITALISM IN OUTERSPACE: A THREAT TO COMMON HERITAGE OF MANKIND UNDER INTERNATIONAL SPACE LAW

AUTHOR NAME : G DHANASEELI

Abstract:

The private space area didn't exist at the time the agreement of outer space was written and it is not acceptable that any of the rules would apply to private groups. Furthermore, also, given the aspirations of many nations and corporations, it's basically impossible that private space going to endure any longer. Space is turning into a space for capitalism with both positive and more in negative way. We are entering into another period of the commercialization of space, outfitted towards producing benefits from dispatching satellites, space travel industry, outer space mining activities, and other related activities .Despite its humanistic, universalizing assumptions, New Space privatization doesn't help mankind all things considered but instead a particular arrangement of rich business people, who deliberately convey humanist figures of speech to induce energy for their exercises. Yet, right now is an ideal opportunity to consider the issues that could emerge from an industrially driven space race, and make the fundamental strides presently to stay away from conceivably lamentable outcomes in the future. Currently , space law rotates around the normal heritage of humankind regulation, a way of thinking whose current understanding struggles with the capitalistic beliefs that are driving the new blast in private space advancement and more serious dangers may expand in which a question arise that to what extend private outer space exploration should be legalized to held private players responsible for the activities on board. There is no proof for this up until now – yet as the field creates and extra private organizations move into space investigation – there will be a higher likelihood of mishap or emergency. Notwithstanding, the expenses of space investigation are cosmic and devastating to less fortunate nations, making them progressively rely upon business launchers. However, in the event that a private organization dispatches an item that therefore causes harm in space, the striving economy should get the bill. The agreement may in this way should be refreshed to make private organizations more obligated. So the author see this as a puzzling effect of ' capitalistkind' which in turn affects the common heritage principle.

KEYWORDS: Private, Organisations, capitalism, Newspace, Space Investigation.

I INTRODUCTION:

It has been 54 years since this Outer Space Treaty established the framework for the development of space law, and during those 50 years, it has never been violated. This is partially because only a very small number of countries have access to space, and these countries have only recently begun to utilise the huge expanse of space. But as the Human Race develops, it becomes imperative in nature for space to be exploited to greater heights. In the current situation, this also includes exploitation by private parties. Therefore, it is crucial that we establish guidelines for the proper exploitation of space by private parties up front in order to address this problem before it actually arises.¹ It will be more difficult to ensure that their actions benefit all of humanity. The exploitation of outer space takes many forms,

¹ Robert Zimmerman, *Capitalism in Space, Private Enterprise and Competition Reshape the Global Aerospace Launch Industry* (Oct 30.2021, 10.45AM), <https://www.cnas.org/publications/reports/capitalism-in-space>.

ranging from the sale of plots on moon to the mining of appropriated asteroids, and so on.² Right now, the most realistic and well-funded use of space is for mining minerals and collecting water from asteroids in the asteroid belt or other celestial bodies. There are currently four companies working on this, all of which are registered in the United States. Explorations Technology Corp., or SpaceX, is another influential and significant US company whose goal is to enable life on other planets in the vast galaxy. SpaceX, which is owned by well-known entrepreneur Elon Musk, is the fastest growing provider of launch services, and its focus could easily shift to the exploitation of outer space in the near future.³ The main goal of these private parties has to be considered while solving the issue of responsible exploitation of outer space.

Research Questions: To what extent private outer space exploration should be legalized to hold private players responsible for the activities on board ? If so, privatization is a key to space Exploration ?

Object Of The Paper:

Finally, the object of research into the identification of what extend the space can be exploited and the shift of privatization of outer space is really a help or hindrance to Mankind .

Review of Literature:

- Lewis D. Solomon, *The Privatization of Space Exploration- Business, Technology, Law and Policy*, Routledge Publisher ,First Edition, 2011.
- Dr.Sachdeva , G.S. *Outer Space-Law,Policy And Governance –KW Publishers Pvt Ltd*; First Edition, 2013.
- Peter Ward,*The Consequential Frontier- Challenging The Privatization Of Space*, Black Stone publiser,2020.

Research Methodology:

The project is based on descriptive research method which is also considered to be a quantitative research method.

II OUTER SPACE TREATY – A HELP OR HINDRANCE TO CAPITALISM SHIFT ON SPACE:

According to Article VI of the Outer Space Treaty, states are responsible for national activities in outer space that benefit all mankind. These activities can be undertaken by both governmental and nongovernmental entities. Simply put, states are liable for the actions of companies registered with them. The author goes on to say that states must authorise and supervise non-governmental entities (NGEs), also known as private parties, who conduct activities in space. Some countries, such as the United States, have appropriate legislation in place for the authorization and supervision of private parties, but others have taken very small steps toward this goal or have no legislation at all. The manner in which this legislation is developed is also important. States should also ensure that NGEs or private parties have appropriate access to regulated outer space activities. However, this influence should not be overstated because it is also critical not to stifle investment.

This raises the question of how far exploitation of outer space should be legalised in order to be responsible. According to Article II of the Outer Space Treaty, private parties cannot claim

² Peter Lothian NelsonWalter E. Block, *Space Capitalism,How Humans will Colonize Planets, Moons, and Asteroids*(Oct30.2021,11.50AM), <https://link.springer.com/book/10.1007/978-3-319-74651-7> .

³ **Elizabeth Howell ,Ailsa Harvey**, *Elon Musk: Revolutionary private space entrepreneur*, (Nov.1,2021,7PM), <https://www.space.com/18849-elon-musk.html> .

things in space, and areas in space can be appropriated by both states and NGEs.⁴ Article V allows non-governmental entities to collect samples for scientific research.⁵ As a result of the Moon Agreement and the ability to collect minerals under the supervision of an international mediator, there is no clear limitation or border line between what can and cannot be exploited. As a result, states can interpret space laws in a flexible rather than rigid manner; an example of this was a framework laid down in July 2017 (i.e., Luxembourg's introduction of a legal framework protecting companies seeking to exploit resources found in space).⁶ According to this new legislation, Luxembourg acknowledges that private parties may possess resources in space and pledges to safeguard those parties who choose to use resources discovered in outer space. Once a nation may hope to give itself a global lead and progress in the field of space exploitation, it is anticipating the creation and progress of a very lucrative industry.

III UNIVERSALISATION OF CAPITALISM IN SPACE – AN OXYMORON:

Space travel inevitably reduces human differences to a common denominator or to a shared species. Even in numerous Hollywood science fiction movies, such as *Arrival* (2016), a first encounter with an intelligent alien species has a tendency to flatten all human differences, restoring mankind to its rightful universality. In order to meet with extraterrestrial messengers, ambassadors of the Earth as a whole, not specific nation representatives, came forward. However, even in the absence of such an encounter, the pursuit of habitable worlds or, more precisely, lucrative locations beyond Earth would compel the development of a shared understanding of the human predicament. This process started with the development of Pale Blue Dot photography in 1990s.⁷ The words of astronomer Carl Sagan, famously remarked it as: It has been one of the dominant tropes in space discourse since the 1950s, and remains strong today, as the United Nations Office for Outer Space Affairs (UNOOSA)⁸ says its job is to "support the vision of a more equitable future for all humanity through shared results in space." This representative trend uses humanism to generate enthusiasm for space-related activities. However, such representations are increasingly being taken over by capitalist enterprise, so that it is not humanity, but its modulation by space capitalists that will launch into the unknown darkness. It is not humanity that ventures out, but the capitalist genre.

NASA was expected to request \$ 150 million in its 2019 budget in early 2018, to "enable the development and maturation of business entities and capabilities that will ensure that the commercial successors to the ISS are one of many signs that peace is becoming a space for capitalism."⁹ According to one estimate, a single asteroid is worth more than \$20 trillion in rare earth and platinum group metals (Lewis, 1996),¹⁰ making it an extremely attractive prize for profit-driven businesses. space, making various appeals to "industry and the private

⁴ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (OST), (Nov.7,2021, 9.00PM), <https://outerspacetreaty.org/>.

⁵ Agreement governing the Activities of States on the Moon and Other Celestial Bodies (Moon Treaty, 1979), (Nov.9,2021,9.12PM), <https://moonagreement.org/>.

⁶ Sam Woolfe, *Asteroid Mining and Capitalism in Space*, (Nov.12,2021,6.45PM), <https://www.samwoolfe.com/2020/03/asteroid-mining-space-capitalism.html>.

⁷ *Id.* at 3.

⁸ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (OST), (Nov.7,2021, 9.00PM), <https://outerspacetreaty.org/>.

⁹ Mike wall, *Trump's 2019 NASA Budget Request Puts Moon Ahead of Space Station*, (Nov.11,2021,9.10PM), <https://www.space.com/39671-trump-nasa-budget-2019-funds-moon-over-iss.html>.

¹⁰ Brett Heino, *Book space, place and capitalism*. pp :47, (2021).

sector," elevating the "space economy" to a central pillar of its Space2030 programme (including the use of resources that create and provide the value and benefits to the world population during the exploration, understanding, and use of space), even if the United Nations agency reverts to a humanist, quasi-social-democratic vision of the distribution equitable benefits and profits from the extraction, ex (UNOOSA, 2018). This strategic humanism can be found in a variety of statements made by New Space entrepreneurs. To illustrate, "From an entrepreneur's perspective, the moon has never really been explored," said Naveen Jain, president and co-founder of Moon Ex, a lunar marketing company.¹¹

He also stated that the moon could hold resources for the benefit of the Earth and all humans. It should be noted that this New Space entrepreneur used the trope of all humanity, which was imitated in the 1979 Moon Accord, a United Nations treaty. Of course, Jain is incorrect in terms of a purely factual meaning: Google Moon provides high-resolution images of the lunar surface, and the moon has already been explored, in the sense that it has been mapped, albeit in a rudimentary manner with room for additional data collection. However, these mapping techniques were not used for capitalist purposes, such as mapping minerals or producing detailed diagrams that could one day turn the Moon into a "gas station" for commercial space companies, which is proposed by Wilbur Ross, Trump's Mall secretary, is the one who also proposed capitalist maps of the Moon. However, according to Klinger, a space research scholar, even though no one is currently actively examining the moon, at least six national space programmes, fifty private companies, and an engineering degree programme are determined to figure out how to do so. Klinger draws attention to mapping efforts that have revealed a high abundance of rare have already noted that, no, it is humanity, conceived as a species, that makes its way through the world.

IV PRIVATE COMPETITION IN DETERMINING DOMINANCE IN SPACE:

Bezos and Musk spent their time apart fighting for the top two spots on Forbes' rich list. For decades, they have also played the "mine is bigger than yours" card in their race for private space. During a pandemic that has destroyed the lives and livelihoods of millions, Bezos' personal wealth has nearly doubled. He is now resigning in order to devote more time to Blue Origin, a company that aims to provide large human colonies throughout the solar system. Musk's rival company SpaceX's stated goal is to "make humanity multi-planetary." To accomplish this, he reasoned, we need really big rockets - or, in SpaceX's original terminology, Big Falcon Rockets (BFR) - capable of transporting tens of people, hundreds of tonnes, and millions of miles through the solar system.¹²

The BFRs have now been replaced by a series of spacecraft. Musk also wants these spaceships to be reusable in order to demonstrate his environmental credentials. So much so that SpaceX planned to detonate four consecutive spacecraft prototypes in quick succession during the first four months of 2021, before attempting to land them again. Silicon Valley's motto is, of course, "move fast and break things." However, you must eventually return the goods. The SN15 spacecraft finally achieved that goal this year, and SpaceX was awarded a massive \$ 2.9 billion contract from NASA three weeks later, propelling Blue Origin into the race for shadow space.¹³

To avoid being outclassed, Bezos imagined what he would hope would be the victorious

¹¹ Pope Brock, *The Moon Is Full of Money: Capitalism in Space*, (Nov19,8.00PM), <https://medium.com/nautilus-magazine/the-moon-is-full-of-money-8de0f9f997be> .

¹² *Id.* at 9.

¹³ Mike Wall, *SpaceX launches Starship SN15 rocket and sticks the landing in high-altitude test flight*, (Nov.19,2021,8.30PM), <https://www.space.com/spacex-starship-sn15-launch-landing-success> .

comeback. He and his brother Mark would be two of the first people on Blue Origin's reusable New Shepard rocket when it made its first manned space flight on July 20. Nobody enjoys coming in second place. Even less the world's most powerful individuals. Richard Branson, the CEO of Virgin, suddenly burst in without even a permit to steal everyone's thunder. Branson made history on July 11 by becoming the first billionaire to travel into space, nine days before Bezos' big day. And he assured us that for \$250,000 you too might spend minutes ecstatically staring at the world that you left behind. It appears that the Musk has already registered. Bezos is not required to do that. He has completed his flawless space mission.

This is not to be sniffed at considering the technical difficulties they are trying to overcome, but it is clear that they are simply not ready to send people into space with this success rate. Nevertheless, private space travel still has clear advantages. Multiple madness, and it shows how effective space exploration privatization can be. Mars Such an ambitious mission will require international collaboration between space agencies, and private space companies will likely be able to conduct supply missions to Mars. You may not send the people yourself, but they will still play a crucial role. Private space companies have their own weaknesses.

i) IS Privatization the Key to Space Exploration?

This is not to be sniffed at considering the technical difficulties they are trying to overcome, but it is clear that they are simply not ready to send people into space with this success rate. NASA can be irritatingly slow, but that's just part of the process for now. Nevertheless, private space travel still has clear advantages. Its Dragon capsule, which is designed to transport people beyond low Earth orbit, is 320 times cheaper than NASA's Orion capsule.¹⁴ Multiple madness, and it shows how effective space exploration privatization can be. SpaceX is also saving millions of dollars by repurposing its rockets. The missile reuse technique has yet to be perfected, but once it does, these types of savings will legitimize private exploration. Building stations on the moon, mining asteroids, and other aspects of science fiction become scientific facts. Mars Such an ambitious mission will require international collaboration between space agencies, and private space companies will likely be able to conduct supply missions to Mars. You may not send the people yourself, but they will still play a crucial role. Private space companies have their weaknesses. It's easy to fall in love with the Bezos and Musk hype, but keeping that excitement at bay is important. Once these companies grow, gain experience, and reduce their risks, the possibilities are endless.

V CONCLUSION AND SUGGESTION:

Last but not least, the recent news that SpaceX intends to launch an unmanned Dragon capsule to Mars by 2018 raises the possibility that the technical gaps between Orion and Dragon may not be as significant as NASA had hoped. Its primary use as a kite is still an ascend and descent capsule to securely transport people up and down from earth orbit while providing radiation shielding for extraterrestrial exploration. Both Orion and Dragon are insufficient for any interplanetary trip. They are just too small to hold a crew on a six to two-year voyage to Mars or beyond, as was already mentioned. Furthermore, SpaceX's own heavy-lift rocket, the Falcon Heavy, demonstrates that a heavy-lift rocket can be built for a lot less money and in a lot less time than NASA would have needed to develop SLS. The first test flight programme for the Falcon Heavy, which has roughly two-thirds the power of the

¹⁴ Capitalism Review, What a Billion Dollars Can Buy: Elon Musk's SpaceX Compared with NASA's Orion, (Nov. 20, 2021), <https://www.capitalismreview.com/2020/12/what-a-billion-dollars-can-buy-elon-musks-spacex-compared-with-nasas-orion/>.

first two SLS missiles, was established for the second quarter of 2017. SpaceX has said that its customers will only pay US \$ 90 million - Billed per launch, indicating that the missile didn't cost much more to develop than the Falcon 9 and significantly less than the SLS.¹⁵

The factors are mentioned below, along with suggestions for what the government can do to benefit from them. One other thing: if you look closely at these suggestions, you'll see a connection. Every one of them aims to give American firms more freedom to respond to market needs while shifting the government's authority as a regulator. The primary concept that unifies these threads is freedom, a basic ideal upheld since the founding of the country. According to academics, the decision to go to the moon during the Cold War was a "defence of freedom." The new space station was given the name "Freedom," and its purpose was to serve as a platform for the promotion of private businesses in orbit.¹⁶ Freedom is really just a very basic concept. Giving individuals and businesses the freedom to operate in a competitive atmosphere encourages clever and smart conduct, and they will respond in kind.

The United States' history demonstrates the viability of freedom. It's time for them to do so once more in space. While privatised space exploration may one day be a preferable alternative, the transition can be challenging. Although NASA's space programme has been the most successful in the last 50 years and currently seems to be the most effective, it is imperative that NASA return to its previous programmes or risk losing its space exploration branch to private corporations. A government space programme is the greatest option for the foreseeable future, but at some point in the future moving to the private sector will be more beneficial. Privatizing space exploration could also become a significant risk, and capitalist type change in space will represent both visionary growth and a road block as it attracts some greedy competitors in space.

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¹⁵ Professor NAYef AL-Rodhan, *The Privatisation of Space: When Things Go Wrong*, (Nov.22,2021,9.50PM), <https://www.gcsp.ch/global-insights/privatization-space-when-things-go-wrong> .