

Harmony in the Heavens: The Importance of the Study of Law in Ensuring Peace and Security in Outer Space

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In the 21st century, we are on the cusp of a new “Age of Exploration” as technological advances and emerging business opportunities have opened up space exploration. A great deal of scientific and economic benefits may be derived for nation-building. It is estimated that celestial bodies like the Moon and asteroids could potentially contain precious resources like energy and rare earth metals that could provide future economic opportunities.¹ However, there is also a great risk as other nations will begin to compete for control over the resources and territory found in space which could lead to war. As the world is currently being rocked by conflicts around the world and the great powers are forming opposing camps, it will be vital for our nation that the heavens remain tranquil rather than a battlefield so that we may derive all the benefits that space may offer us for our national development. In this essay, I shall examine how the study of law will be beneficial to the country's goal of being a space faring nation by helping to create legislation that will ensure peace and order in Outer Space. This is through the use of principles such as social justice found through the study of law that can be integrated into future legislation to ensure peace.

History

Space Law emerged from the hostile rivalry between the United States and the Soviet Union during the Cold War in which both sides looked for any means to gain an advantage over their opponent. When the Soviet Union launched the first man-made object into space in 1957, this opened up a new theater in which the two Superpowers could compete.² Thus, it necessitated the need for treaties and international agreements that would regulate the conduct of nations in Outer Space. As early as 1963, the United States and Soviet Union reached an understanding, first through bilateral agreement and later in United Nations Resolution 1884, to ban the deployment of nuclear weapons and other weapons of mass destruction in Outer Space.³

The general idea that governed the early creation of Space Law at that time was the need for cooperation between states and the use of Outer Space for the common benefit of humanity. This sentiment was expressed by former US President John F Kennedy in his speech to the United Nations in September 1961. In his speech, he urged that space exploration should not be “driven by the old bitter concepts of imperialism and sovereign claims” and that Outer Space should not be “the new arena of an even colder war”. He believed instead that Outer Space should be used for peaceful means by all nations.⁴

These ideas were codified into law in the Outer Space Treaty in 1967. Many of the articles were made to prevent a possible arms race or conflict in space. Article II of the treaty states that Outer

¹ Alex Gilbert, *Mining in Space Is Coming*, MILKEN INSTITUTE REVIEW, April 26, 2021, at <https://www.milkenreview.org/articles/mining-in-space-is-coming>

² Peter Jankowitsch, *THE BACKGROUND AND HISTORY OF SPACE LAW 2*, (2015) available at <https://www.elgaronline.com/edcollchap/edcoll/9781781000359/9781781000359.00010.xml>

³ *Id.* at 3.

⁴ John F Kennedy, Address to the United Nations General Assembly, (Sept. 25, 1961)

Space is not subject to national appropriation by claim of sovereignty.⁵ Article IV states that parties are prohibited from deploying nuclear weapons in space and that the moon and other celestial bodies shall be used exclusively for peaceful purposes.⁶

As can be seen, since the beginning, Space Law has concerned itself with the issue of security and ensuring peace and cooperation between states.

Why the Need for Peace and Security in Outer Space

Space holds many benefits for people on Earth that must be protected. One of them is the use of satellites. As of April 2020, there are nearly 2666 man made satellites orbiting the Earth. 1440 of these are for commercial usage such as TV and Internet connectivity. 446 are used for Earth observation. 97 are used for navigation. 87 are used for tech demonstrations. 9 are for other purposes. They are vital for GPS navigation, environmental monitoring, internet connectivity, scientific research and other important functions.⁷ However, if conflict were to spread into space then these vital satellites may become collateral damage or targets of the enemy for destruction. Hostile nations during a conflict may destroy these satellites to weaken the economy of the opposing side. This will cause destabilization of the global economy which relies on the communication functions that satellites provide.

Another reason to ensure peace in space is due to the increased geopolitical tensions around the world. Currently, the world is being subjected to multiple wars and conflicts in the Middle East, Ukraine, and the West Philippine Sea. In response, countries have formed themselves into rival alliances to counter their opponents. The world is currently at risk of a major conflict between the great powers if the current geopolitical tensions escalate. Areas such as the West Philippine Sea or Ukraine are places in which these great powers compete for influence and military advantage over their rivals. If these geopolitical rivalries were to extend to space, it would create a new battleground in which the superpowers are going to compete. There could be a future in which the nations carve up Outer Space amongst themselves to increase their power and influence at the expense of their enemies. This would create a new point of tension and competition in which a miscalculation could cause a major conflict. Already on Earth, nations are warring over competing claims for territory and resources. What more if these rivalries extend to space?

These tensions would be further exacerbated by the kinds of weapons that could be deployed in Outer Space such as nuclear weapons and other weapons of mass destruction. The amount of damage and destruction that may be inflicted on whole countries if these weapons were used in space is unimaginable. Thus, it is vital to ensure that peace in space is maintained to mitigate the scope and devastation that a war may inflict.

⁵ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies art. II, Oct 10 1967, available at <https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/outerspacetreaty.html>

⁶ *Id.* at art IIV.

⁷ Therese Wood, *Who owns our orbit: Just how many satellites are there in space?*, WORLD ECONOMIC FORUM, Oct 23, 2020 at <https://www.weforum.org/agenda/2020/10/visualizing-earth-satellites-space/>

How the study of Law Ensures Peace and Security

To ensure that peace and security are maintained in space, it is necessary to create effective legislation and laws that will ensure that hostilities will be avoided. These laws should be aimed at regulating the behavior of parties in space exploration so that they will act in a way that will ensure that tensions in space do not escalate. It must be acknowledged that this will not be a perfect solution. As with other fields of international law or laws that involve relations between countries, it will be difficult to implement laws for Outer Space as there is no central governing body that can enforce its compliance by other nations. However, nations will still be incentivized to follow these rules as disobeying them will lead to their actions losing legitimacy in the eyes of both other nations and their people. Without legitimacy, they will find that their actions will have far less support and will be more difficult to implement, thus discouraging them from violating the law in the first place.

To create effective legislation, it is necessary to study the law. This does not just involve reading the law or jurisprudence but also understanding the history, culture, politics, and principles that influenced the law. The study of legal systems, according to Professor Agabin, also involves the study of the “legal culture” which are the historically conditioned attitudes about the nature of the law.⁸ By studying these various factors, we can understand why certain laws were created. We can also learn by studying the law why certain laws failed to achieve the goal their creators set out or what sort of impact they had when they were implemented. By learning these, better laws can be created that can serve the people.

How it May Be Improved. The Role of Social Justice

In regards to space exploration and security, a study of Philippine laws and jurisprudence as well as their history reveals several principles that may be used for the creation of laws governing space exploration. One important idea that will be explored in this essay is social justice.

The 1987 Constitution says that social justice shall be promoted by the state in all phases of national development.⁹ Justice Jose P Laurel defined social justice as “the promotion of the welfare of all the people, the adoption by the Government of measures calculated to ensure economic stability of all the competent elements of society, through the maintenance of a proper economic and social equilibrium in the interrelations of the members of the community”¹⁰ Essentially it means that the welfare of all people should be equally promoted and fostered through economic and social policies. This can be seen in the Constitution which says that the state is to promote a just and dynamic social order and free the people from poverty.¹¹

Although space exploration holds much potential for development and the creation of wealth through the harvesting of new resources and the development of advanced technologies, there is the danger that the benefits of Outer Space will be limited to only a certain class of people who through their political and economic connections will be able to reap the benefits of space while the vast majority of people will receive nothing. This will create further inequality as those at the

⁸ PAFICIO AGABIN, MESTIZO: THE STORY OF THE PHILIPPINE LEGAL SYSTEM 4-5, (2011).

⁹ CONST. art. II, § 10.

¹⁰ *Calalang v Williams*, G.R. No. 47800, 070 Phil 726, Dec 2, 1940.

¹¹ CONST. art. II, § 9.

bottom of society are in danger of becoming victims of exploitation and poverty as they will be denied access to the future benefits of Outer Space while those at the top have full access to the resources of Outer Space. As only large corporations and billionaires have the necessary capital to attempt space exploration, then they will be the ones who will benefit from space. Meaning that the rich will get even richer and the poor, who do not have the resources for space exploration, will get poorer. Pope Leo XIII already warned of the dangers of inequality back during the Industrial Revolution in *Rerum Novarum*. He warned that while the scientific and technological progress of the Industrial Revolution had created new wealth for some who had access to these innovations, it had also left many workers in utter poverty and destitution as they lacked these advantages.¹²

The issue of inequality also applies not just among people but among nations. Space exploration is a very resource intensive and technically difficult undertaking. Only a few nations have the sufficient capacity to do such an undertaking. Thus only these countries, who are already wealthy enough to support space exploration, will enjoy the benefits of Outer Space while poor nations that can not afford space exploration will be excluded from new technologies and resources that may be discovered. Their development will lag behind those of advanced nations and the gap between developed and underdeveloped countries will increase.

Inequality can create resentment between those who will benefit from space exploration and those who will be left behind. This will cause tensions in society as those who do not have access to critical resources will fight those who do to obtain them. Poverty will also lead to instability and chaos as it drives people to desperate measures to survive such as crime, violence, and illegal activities. It can also drive individuals into radical and extremist groups like terrorists that prey on the disenfranchised with possible solutions to their problems. All of these issues will weaken the control of the authorities causing even more instability and turmoil in society.

On the international level, this inequality will create issues such as refugee crises and terrorism in countries that are poorer due to the instability it causes which could then spread to other regions. It is also plausible that in the future “resource wars” will be fought and territory in Outer Space will be divided between the great powers for access to said resources. History is full of wars in which nations fought for access to resources. Given the vast potential that Outer Space holds for growth and development, it is almost certain that nations with space faring capabilities will try to exploit it for themselves to the exclusion of other countries.

It is therefore necessary that the law must recognise the imbalances in society and take steps to remedy them for social order. As former President Ramon Magsaysay said, “He who has less in life should have more in Law”.¹³ Thus it is vital that in legislation regarding space exploration, social justice is integrated. The laws must ensure that the resources extracted from Outer Space must be equally distributed among all members of society. The use of the wealth gained from space exploration should be focused on uplifting those in poverty and investing in programs that benefit the nation as a whole such as healthcare and education and not just a wealthy minority.

¹² POPE LEO XIII, *RERUM NOVARUM* 2 (1891).

¹³ The Ramon Magsaysay Award Foundation, *Biography*, available at <https://www.rmaward.asia/biography> (last checked July 15 2024)

Laws must also ensure that corporations and private firms that engage in space exploration adequately compensate their workers and that they are to be protected from any of the potential hazards that may be encountered in space.

It must also be recognized that poorer nations will not be able to utilize Outer Space to the same degree that richer nations can without aid. Therefore laws and treaties must also be created that allow less developed nations to have access to the necessary technology and capital needed for space exploration. Ideally, this technology should come from richer nations as they can easily afford the expense involved in space exploration that poorer nations cannot. There must also be laws and treaties that ensure the right of all nations to equal use and enjoyment of Outer Space and its resources. These measures will help to ensure that less developed nations can also use space for their national development.

Conclusion

This is just one of the possible principles and doctrines that may be applied to future legislation regarding Outer Space. Many more may be found through the study of law. The integration of these into future legislation will allow for peaceful space faring and exploration. Order and stability will be necessary to ensure that the full benefits of space can be used for our national development without interference.

In the coming decades, space exploration will be of far greater importance to society and the public. History is full of wars of conflict. With the advancement of weapons technology and the continued integration of the global economy, we cannot afford a conflict that will be more devastating than any in history. We will thus need the law to ensure that our disputes are settled peacefully and nations resort to cooperation rather than conflict. To become a space faring nation, we must learn to abandon our old enmities and embrace the future in which we can be united in our common goal of peace, progress, development, and the well-being of all.