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Tiruchirappalli – 620102

Phone : +91 94896 71437 - [info@iledu.in](mailto:info@iledu.in) / [Chairman@iledu.in](mailto:Chairman@iledu.in)



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## TAKING SOVEREIGNTY OUT OF THIS WORLD: WEAPONISATION OF SPACE

**AUTHOR** - ABHINAV VISWANATH, STUDENT AT  
SCHOOL OF LAW, CHRIST (DEEMED TO BE)  
UNIVERSITY

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### ABSTRACT

Preventing space from turning into an arena of conflict is essential for world peace and strategic stability. Consistent with this notion, for the decade's nations have been working towards developing a network of multilateral treaties, conventions, resolutions and declarations to face the challenges presented by the exploration and use of outer space and to adopt approaches for promotion of space activity. These multilateral treaties and conventions highlight the importance of international cooperation in developing the rule of law and creating the foundation for the outer space legal framework we have today. Through this paper, the authors try to bring out the significance of 'sovereignty of states' to the discussion of activities in outer space. Furthermore, this paper brings out the distinction between space militarization and space weaponization. Additionally, this paper discusses some of the developments in light of strategies to weaponization of outer space adopted by various states. To conclude, the article proposes the establishment of a World Outer Space Authority to regulate behaviour in this domain of International Relation. This Authority galvanizes the efforts made in the several conferences and committees held so far in developing the rule of law. It will provide an alternative platform where binding decisions can be made by majority vote versus

consensus to ensure enforcement of the rule of law.

### INTRODUCTION

Judge Huber noted in the Island of Palmas case<sup>2359</sup> that, "sovereignty in relation to a portion of the surface of the globe is the legal condition necessary for the inclusion of such portion in the territory of any particular state." Apart from territory actually under the sovereignty of a State, international law also recognises territory over which there is no sovereign. Such territory is known as terra nullius.<sup>2360</sup> In addition, there is a category of territory called res communis which is generally not capable of being reduced to sovereign control. It is based on the concept of common heritage of mankind. The prime instance of this would be outer space. However, the evolving trend towards weaponisation of space is evidence of the decline in the concept that outer space is res communis. This is the hypothesis that this paper seeks to demonstrate.

It is now essential to understand the difference between space militarization and space weaponisation. Space militarization means utilisation of space for intelligence gathering, surveillance and reconnaissance missions through satellites to support forces on ground in the battle field.<sup>2361</sup> Space militarization is already in practice by many states and forms an increasingly vital part of their military activities. However, the term 'Space Weaponisation' tends to raise alarm as it implies deployment of weapons in the outer space or on heavenly bodies like Sun and Moon or sending weapon from earth to the outer space to destroy satellite capabilities of other states.<sup>2362</sup> Thus, space weaponisation refers to the actions taken by a state to use outer space as an actual battlefield.

<sup>2359</sup> United States v. the Netherlands (1928) 2 R.I.A.A. 829.

<sup>2360</sup> Malcolm Shaw, International Law, pp 364 (8<sup>th</sup> ed. 2018).

<sup>2361</sup> Ahyousha Khan, India's Probable Move toward Space Weaponization (8<sup>th</sup> August, 2018). <https://moderndiplomacy.eu/2018/08/08/indias-probable-move-toward-space-weaponization/>

<sup>2362</sup> *Id.*

While space has become an increasingly important arena for military operations, countries have not yet placed weapons in space or developed weapons which would fire into space.<sup>2363</sup> Thus, for the moment, space is non-weaponised. However, this situation is soon changing. A number of countries, including Russia, China and the US, are reported to already be developing anti-satellite weapons. The recent trend towards weaponisation of outer space has led to powerful nations like the United States (U.S.) claiming a sovereignty of sorts over the space.

### ADVANTAGES AND DRAWBACKS OF SPACE-BASED WEAPONS

The major advantage of space-based weapons is that they can be deployed to attack extremely quickly. Additionally, it is very difficult to defend against them. Their tremendous range would enable space-based weapons to reach targets that other weapons cannot, and because they are based in orbital space there are no concerns about violating the airspace of other states in transit, as there is with airplanes or non-ballistic missiles. Their drawback is cost, both for development and for placing in orbit. Consequently, Nations have gone a long way to identify and deter the weaponization of space owing to the concerns over weaponization. Additionally, the impossibility to define a 'space weapon', and controlling a prospective 'weapons race' based on definitions of what constitutes a weapon is laid with the brief mention of those weapons posing a substantial risk to humanity, such as nuclear and other weapons of mass destruction.

### UNITED NATIONS TREATIES AND PRINCIPLES ON OUTER SPACE

The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (commonly referred to as the Outer

Space Treaty), 1967 provides that the exploration and use of outer space, including 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.<sup>2364</sup> Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.<sup>2365</sup>

States Parties to the Treaty also 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. The Moon and other celestial bodies should be used by all States Parties to the Treaty exclusively for peaceful purposes.<sup>2366</sup> Further, "the establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military on celestial bodies is forbidden. However, the use of military personnel for scientific research or for any other peaceful purposes is not prohibited."<sup>2367</sup> Thus, the treaty did not specifically ban the military use of outer space, other than the placing of nuclear weapons and other weapons of mass destruction in space. Since the military utility of space-based technology has increased tremendously.

Thus, for the time being there is a clear absence of a comprehensive international legal framework which can effectively restrict countries from weaponisation. This legal void is in fact contributing to an unstable and unsecure space environment. The dominance and strategic dependence of the US on space assets for military purpose has fostered an uneven and tense playing field, in which its rivals seek to catch up in terms of

<sup>2364</sup> Article 1, Outer Space Treaty, 1967.

<sup>2365</sup> Article 2, Outer Space Treaty, 1967.

<sup>2366</sup> Article 4, Outer Space Treaty, 1967.

<sup>2367</sup> Article 4, Outer Space Treaty, 1967.

<sup>2363</sup> <http://www.nuclearfiles.org/menu/key-issues/space-weapons/basics/introduction-weaponization-space.htm>

weaponization and the US seeks to maintain its dominance.

### TREND TOWARDS WEAPONISATION OF SPACE BY THE UNITED STATES

On 31 August, 2006, President Bush authorized a new National Space Policy that called on the Secretary of Defense to 'maintain the capabilities to execute support, force enhancement, space control and force application missions' 'develop capabilities, plans, and options to ensure freedom of action in space, directed, deny such freedom of action to adversaries.'<sup>2368</sup> In addition the policy stated that 'The United States will oppose the development of new legal other restrictions that seek to prohibit or limit US access to or use of space. arms control agreements or restrictions must not impair the rights of States to conduct research, development, testing, and operations or other activities space for US national interests.'<sup>2369</sup> As such, China's Anti-Satellite Weapons Test only seems to have accelerated the US defense establishment's plan of seizing geopolitical control of orbital space under such rubrics as 'missile defense', 'space control', and 'force application from space'.<sup>2370</sup>

The 3 types of space weapons programs currently being pursued by the US are space-based missile defense, space control and force application from orbital space. In order to deploy these forms of space weapons, US will need to develop new military technologies. To achieve 'space control', technology capable of destroying the satellites of rivals and protecting one's own satellite is necessary. Anti-satellite technology already exists to some extent, in as much as a state with ballistic missile

technology could launch a warhead into orbit and detonate it near a targeted satellite.<sup>2371</sup>

The doctrine of space control has emerged out of the belief that assets in space represent a potential target for enemies of the US.<sup>2372</sup> There are two kinds of vulnerable US assets: private-commercial; and military. One concern is that rivals may attack commercial satellites, thereby disrupting the flow of information and inflicting significant harm on global markets. Militarily, the concern is that, through increasing reliance on satellites for Earth-based military operations, the US has created an 'asymmetrical vulnerability'.<sup>2373</sup> An adversary (including a non-state, 'terrorist' organization) could effectively immobilize US forces by disabling the satellites that provide communication, command, and control capabilities. The project of space control is designed to protect commercial and military satellites from potential attacks. Its broader purpose, however, is to prevent rivals from having any access to space for activities antithetical to US interests; this is the imperative for 'denial of the use of space to adversaries'. Thus, space control has dual functions – it is both a privatizing of the commons of orbital space and a military exclusion – in a form of 'inclusive exclusion'. Space control represents the extension of US sovereignty into orbital space. By controlling access to orbital space the US would be forcibly appropriating the orbits, in effect turning them into primitively accumulated private property.

In August, 2018, the US President Donald Trump's administration announced that it has set a goal of creating a sixth branch of the US military by 2020. The Space Force would be responsible for a range of crucial space-based US military capabilities, which include everything from satellites enabling the Global Positioning System (GPS) to sensors that help track missile launches. One of the arguments in favour of

<sup>2368</sup> President George W. Bush, 'US National Space Policy' (Office of Science and Technology 31 August 2006), pp 4.

<sup>2369</sup> *Id.*, pp 2.

<sup>2370</sup> Raymond Duvall and Jonathan Havercroft, Taking Sovereignty out of This World: Space Weapons and Empire of the Future, *Review of International Studies*, Vol. 34, No. 4 (Oct., 2008), pp. 755-775.

<sup>2371</sup> Michael E. O'Hanlon, *Neither Star Wars nor Sanctuary: Constraining the Military Uses of Space* (Washington, DC: Brookings Institution Press, 2004), p. 8.

<sup>2372</sup> Raymond Duvall and Jonathan Havercroft, *supra* note 12.

<sup>2373</sup> *Id.*

devoting more resources to a Space Force or Space Command is that American rivals like Russia and China appear increasingly ready to strike US space-based capabilities in the event of a conflict. "It is becoming a contested war fighting domain and we have to adapt to that reality," US Defense Secretary Jim Mattis. These developments are evidence of the fact that the US is emerging as a world leader in weaponizing space and consequently claiming sovereign over it.

### PEACEFUL USE OF OUTER SPACE

At this juncture, it becomes pertinent to highlight the findings of the committee on peaceful use of outer space<sup>2374</sup> (Hereafter referred to as 'COPOUS'). The COPOUS, in its endeavor to maintain outer space for peaceful purposes, was of the view that it was imperative to address the issue of weaponization, since military acts/ omissions in outer space were seriously affecting international relations in the process of exploration and development. However, the deadlock in the committee's operations and Domestic Legislations of various nations reflects a flaw in the general weight States place on resolutions and in the consensus system of decision making respectively. Consequently, it is important to point at COPOUS's inability in recent years to convert draft legal instruments into treaties. Reason for the same is attributable to Committee's insistence on concluding treaties by consensus, rather than voting. Thus, owing to the difficulty in formulating a new binding treaty at the international level related to outer space including the, States have resorted to creating "soft law" to structure the space governance and to ensure appropriate implementation of related treaties among different countries.

### DEVELOPMENTS IN OTHER COUNTRIES

<sup>2374</sup> General Assembly Official Records, Sixty-second Session Supplement No. 20 (A/62/20), Report of the Committee on the Peaceful Uses of Outer Space, United Nations..

China launched an anti-Satellite Weapons (ASAT) test on 1 January 2007.<sup>2375</sup> China has also made significant progress in developing anti-ballistic missiles (ABM) which like ASATs can also be used to target other state's intelligence, surveillance and reconnaissance satellites.<sup>2376</sup> Both the US and Russia have also successfully tested anti-satellite weaponry – the US taking down a low-orbit defunct satellite in 2008 and the Russians completing a flight test of the A-235 Nudol direct ascent anti-satellite missile.<sup>2377</sup> North Korea recently joined the race, launching its own satellite into space.

In June 2013, Chinese President Xi Jinping spoke to astronauts at the launch of the Shenzhou X manned mission and said that China will take bigger steps in space exploration in pursuit of its "space dream."<sup>2378</sup> He acknowledged that the space dream is part of the dream to make China stronger. "With the development of space programs, Chinese people will take bigger strides to explore further into space," he said. In another occasion, on April 24, 2016, marking China's first "space day," the president asked scientists to help realize China's dream of becoming a global space giant.<sup>2379</sup>

### CONCLUSION

United States also refused to back the Prevention of an Arms Race in Outer Space (PAROS), a treaty to ban the placement of conventional weapons in space. The recent announcement of the Trump administration to create Space Force is also evidence of the fact that the US is moving towards claiming a sovereignty of sorts over the outer space. This is also

<sup>2375</sup> William J. Broad and David E. Sanger, 'Flexing Muscle, China Destroys Satellite in Test', New York Times, 19 January 2007.

<sup>2376</sup> *Nayef Al-Rodhan*, Weaponization and Outer Space Security 12<sup>th</sup> March, 2018, <https://www.globalpolicyjournal.com/blog/12/03/2018/weaponization-and-outer-space-security>

<sup>2377</sup> *Id.*

<sup>2378</sup> Harsh Vasani, How China Is Weaponizing Outer Space (January 19, 2017), <https://thediplomat.com/2017/01/how-china-is-weaponizing-outer-space/>

<sup>2379</sup> *Id.*

because US being a developed country has the resources required for space weaponisation. However, there are major obstacles to the realization and effectiveness of space weaponisation. A major challenge is with regard to technical feasibility, including the program's cost and the likelihood that it will spark a new arms race in outer space. This is due to the power balancing concerns of developed States like the US, Russia and China. The unilateral militarization of space undermines the logic of mutual deterrence. States not included under its umbrella become increasingly vulnerable to (even nuclear) attack by the state that controls it.<sup>2380</sup> US monopoly in the deployment of weapons in orbital space will affect the structure and character of modern international relations.

The sovereignty of a state is conceptually and practically linked to its ability to maintain territorial integrity by deterring enemies from attacking. Space weapons, just as space-based missile defense, would effectively strip other states of their territorial sovereignty. While de jure sovereignty may remain intact, de facto sovereignty would be effectively erased. A space arms race is impending as other countries move to protect their interests against possible attack from the US. On a conclusive note, it is recommended to establish an authority to regular behavior in outer space and to lay down firm guidelines w.r.t obligations of nations in outer space. Therefore, an attempt to regulate and control the destructive behavior of nations rather than attempting to limit their technology must be made, as it is highly difficult to prevent countries from engaging in war. However, one can bolster peaceful dispute resolution methodologies to prevent escalation of international conflicts and provide a deterrent against irresponsible behavior. While, current international agreements do not offer enforceable means of addressing such destructive activities. As a way forward a

standing committee/International outer space body is needed to provide an effective and equitable forum for regulating, monitoring, and adjudicating claims and disputes relating to the damage caused by objects launched into space, whether they are designed for destruction or not.<sup>2381</sup>

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