

INDIA AND OUTER SPACE: INDIA AND MILITARISATION OF OUTER SPACE

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Introduction

Clear delineation and demarcation of boundaries have given rise to competitive tendencies among human beings. Man is basically a warring animal. There is a propensity among individuals to subjugate their counterparts and emerge as the superior. This tendency of human beings gets reflected at the macro level in the form of nations' unquenchable thirst for domination. Along with the development of human ingenuity in all other walks of life, the science and technology of warfare have become greatly changed as a result of which the interrelationship between countries has become much more complicated. The race for superiority has resulted in the amassing of huge amounts of weapons which if used even once can lead to the elimination of life from the earth. The intensity of this process of militarization is so high that it has not only enveloped the earth in its unsavoury clutches but has also extended to the outer space. The nations after establishing their sovereignty on land now are also aiming to control the territory beyond it. Unimpeded access to outer space and unrestricted freedom to use outer space and celestial bodies provides a tempting opportunity for a technologically advanced country to seize control of outer space and deny freedom of use to other countries that stand in its way. A country in possession of unique advanced space technology and with the will and means to use it for military purposes might achieve dominance over non-space faring countries. These reasons have triggered the programme of 'weaponisation' of the outer space. Various countries through their space and satellite programmes are indulging in the creation of a strong military base in the outer space so as to enhance their security. This paper explores the military usage to which the outer space is being subjected to. It examines in detail the role that India is playing in the militarization of space. India has always been a peace loving country and has been committed towards maintenance of harmony in the world. The Research question which the author would be dealing with is that whether India's role towards the militarization of the outer space has been that of a contributor or a protector.

History of militarization of space

Militarization of space is not a novel idea but has been a debatable topic even before the launch of the Sputnik I. Even in those times it was argued that whether the military activities should be permitted in outer space and whether aggressive military uses should be prohibited.¹ The 1957 launch of the Sputnik by

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the then USSR created a crisis among the western military thinking.² The possibility of a surprise attack from outer space became apparent. In 1958 USSR proposed a ban on the 'use of cosmic space for military purposes' to go along with the states undertaking to launch rockets into the space only as part of an 'agreed international programme'.³ This proposal was however allied with the elimination of foreign military bases on the territories of other states, the establishment of that international space programme and the creation of a UN agency to supervise what was done under it.⁴ Military and public opinion on this question in The United States was varied. Many scholars were of the opinion that the USSR by launching the Sputnik has infringed upon its sovereign space.⁵ But President Eisenhower of the USA opined that outer space should not be subjected to claims of sovereignty but it should be free.⁶ The Soviets also had an orbital weapon known as the FOBS (Fractional Orbit Bombardment System). The concept was to place a hydrogen bomb in low earth orbit (LEO) for quick launch against a ground target if need arose. The system was secretly tested from 1966 to 1970, and the Soviet government revealed that it had 18 FOBS launchers in their inventory at Tyaratam.⁷ The Cold War was in its full swing and the hostilities between the two Superpowers was leading to an accelerated accumulation of arms. The danger of a third world war and the objective of prevention of the arms race in the outer space ultimately led to the signing of the Outer Space Treaty (OST) in 1967.⁸ But despite the signing of this treaty and repeated assurances by nations that outer space would not be put to the macabre use of militarization, they have hardly adhered to the principles which they have themselves formulated. US officials issued a statement to the effect that US Policy as announced in 2006 does not lead to weaponization of outer space.⁹ But, all these statements convey hollow commitments as despite repeated efforts and constant debates the anti-militarisation of space has yet not been achieved.

Legal Instruments Related To Militarisation Of Space

The gigantic ambitions of nations to enhance their security and strengthen their military base by extending it to the outer space was not seen with much favour by the International community as a whole. Hence, in order to curb the skyrocketing ambitions and to protect the space from being subjected to such hazardous and harmful usage various Treaties and Conventions were drafted which would serve as effective international legal instruments and would place limits on the activity of 'militarization of space'. The United Nations which is the hallmark of International law in its Charter specifically disapproves the use of space for military activities. Article 2(4), outlining the fundamental obligations of states regarding military action, in space or elsewhere states that, "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 manner inconsistent with the purposes on the United Nations."¹⁰ The first use of military power in outer space is per-se illegal, if undertaken without justification as outlined in the charter under Article 51 (self-defense), or unless authorized by the

Security Council.¹¹ The 'magna carta' of anti militarization of space is the Outer Space Treaty which was signed in 1967.¹² Its primary goal was the avoidance of colonial competition and military rivalry in space. Some of the relevant sections of this treaty which put limits on the militarization of space are:

- Article I stated, "The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interest of all countries."¹³
- Article II held that space "is not subject to national appropriation by claim of sovereignty."¹⁴
- Article IV informed states to "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."¹⁵
- Article VII outlined how a state that launches a satellite "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 the air space or in outer space."¹⁶ But despite such weighty provisions, still the OST has provided for flexibilities which dilute its positive effects. The treaty does little to define what constitutes "peaceful" utilization of space therefore, it implicitly allows for the following military activities:
 - Objects carrying nuclear weapons or other weapons of mass destruction (WMD) can freely transit outer space as long as they do not orbit the Earth.¹⁷
 - Other non-nuclear/non-WMD weapons may be placed in orbit and used to attack targets in space or on the Earth.¹⁸
 - Weapons, including nuclear/WMD, may be tested in outer space.¹⁹
 - Countries may use satellites to perform military functions including, telecommunications, reconnaissance, and navigation.²⁰
 - Nuclear powered satellites are permitted.
 - There is no direct ban on non-nuclear anti-satellite or anti- missile weapons, whether space or Earth-based.²¹

Apart from the Outer Space Treaty the second most effective treaty that has contributed towards the demilitarization of space is the Limited Test Ban Treaty, 1963.²² Article 1 of this Treaty states that, "all parties undertake "to prohibit, to prevent, and not to carry out any nuclear weapon test explosion, or any other nuclear explosion, at any place under its jurisdiction or control: in the atmosphere; beyond its limits, including outer space; or under water."²³ Another Treaty which was drafted for the protection of space was the Anti Ballistic Missile Treaty, 1972 which was subsequently withdrawn by the U.S. in 2002.²⁴

Under Article V of this treaty, both parties undertook “not to develop, test, or deploy ABM system or components which are...space based.”²⁵ “Each party additionally undertook in Article XII “not to interfere with the national technical means of verification (understood to include photoreconnaissance and other satellite-based sensors) of the other party” and “not to use deliberate concealment measures which impede verification by national technical means.”²⁶ “The above mentioned treaties form the corpus of international legal instruments which regulate the militarization of space.

India’s Role in Militarization Of Space

India has been a peace-loving country since its inception. It has been committed to the maintenance of peace and harmony in the world. India’s space operations are managed and controlled by the Indian Space Research Organisation (ISRO).²⁷ It has focused its efforts on two major activities:

- Satellites used for remote sensing, meteorology and communications.²⁸
- Rockets and launch capabilities for its satellites.²⁹

National economic development has been the primary goal of India’s space program. Initial programming decisions focussed on building stepping stones to national satellite production and national launching capability. Programs also sought to decrease dependence on outside technology. Space assets that produced tangible development benefits at the national level were the organization’s priority.³⁰ From ISRO’s inception, a driving objective has been delivering services such as remote education, telemedicine, weather forecasting, and disaster-monitoring³¹ – all efforts aiding primarily in national economic development. The commercial arm of ISRO, Antrix, is also successful, and brought in more than \$500 million in 2006 – which is over half the operating budget of the entire ISRO.³² The defense sector of Indian technology is essentially managed by Defense Research and Development Organization (DRDO).³³ This organization operates under the Indian Ministry of Defense, and India’s missile technology was developed by DRDO. In the past, some cooperation between ISRO and DRDO has been evident. However ISRO’s institutional preferences, and the limits of its civilian mandate, have acted as a significant check on DRDO attempts to involve the former in military endeavors. While ISRO defines itself as a civilian organization and consistently denies any interaction with DRDO, there are indications that ISRO does cooperate on military objectives.³⁴ ISRO’s launch of increasingly capable imaging satellites with implications for spying is one such indication, and some sources have even hinted the satellites were built by DRDO.³⁵ The question of the level of military or dual-use projects worked on at ISRO is not new, though, as is evidenced by the U.S. State Department’s May 1992 decision to impose trade sanctions against ISRO for proliferating missile, specifically rocket engine, technology.³⁶ Two major military priorities emerge out of India’s current space capabilities. One is improvement of satellite reconnaissance capabilities, and the second is an integrated aerospace defense

command.³⁷ These efforts were further prioritized after China's ASAT test,³⁸ however both pursuits have been on the Indian agenda since the late 1990s.³⁹ The primary motivations originated in the 1999 Kargil conflict and continued instability with Pakistan, coupled with India's rising regional role. The powerful impact of space assets on military power – particularly in the United States and China – and the ambitions of other nations in Asia also are noted by Indian defense officials.⁴⁰ Many arguments have been advanced in favour of India strengthening its military capabilities in the outer space. One of the major reasons that trigger concern among the intelligentsia is China's advancing militarized use of space. Chinese space programs, both in military and dual-use terms, are "evolving at an extremely rapid pace, to the extent that it has decisively altered the balance of power overwhelmingly in its favor."⁴¹ The use of satellites to expand and enable military capabilities has been occurring in India for some time, and it is likely that dual-use programs in terms of ASAT capabilities and space weapons will be pursued in order to keep pace with potential adversaries.⁴² After China acknowledged the destruction of its own satellite, India joined the United States, Britain and Japan in lodging a formal diplomatic protest to Beijing.⁴³ The strategic decision of whether India will follow the lead of China and the United States in demonstrating ASAT capabilities is one that puts the political leadership's goal of ensuring the peaceful uses of outer space to the test.⁴⁴ Apart from the above-mentioned reasons there are other factors too which act as a stimulant for India to embark on militarization of space. These factors include for reconnaissance of the ground-based and troop movement of the enemy, for tapping communication, jamming the enemy network and destroying enemy satellites.⁴⁵ Hence, it can be deduced from the arguments stated above that though India is not a full fledged participant in the militarization of space it is not completely alienated from it too. The space militarization programme in India is at an inception level but India in its effort to build up the space technology is not going to compromise on the principles of peace and harmony it is committed to.

Conclusion

Military uses of outer space should be viewed within the context of and the limitations established by existing international law. The legal framework consists not only of the UN Charter and special international laws on military activities in outer space; it also includes existing space law treaties and agreements. Civilian commercial activities have increased exponentially in the outer space and they would be adversely affected by the military action in outer space. Militarization of space is taking military competitiveness among nations to unprecedented heights. It would act as a hindrance in the maintenance of peace and harmony in the world and would lead to chaos. India threatened by its military competitors and in pursuance of its safety has off late been trying to develop a military base in the outer space. It has not achieved high levels of militarization but is in the process of building up a defence system in the space.

But, India, unlike other nations like China and U.S.A is not espousing an aggressive space militarization programme but is only using the outer space for limited defence purposes. It cannot be imputed that India is contributing towards the ever increasing danger to the security of the world which is the inevitable consequence of the militarization of space.

Endnotes

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