

Space: The New Frontier for War

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Synopsis:

Space has emerged as the new arena where humans have seen the possibility to reach with its warfare and occupation to impose deterrence over each other. As technology is reaching its utmost peak in this century, so are the threats of new kinds of conflicts. This paper focuses on how space has been included in this critical design of warfare and what might it offer as implications for security.

Commentary:

Defense mechanisms and conventional warfare tactics have been revolutionized in the post-cold war era and space has become one of the most significant components of this dynamics. Most countries with modern military and surveillance depend on the protection of space to regulate their activities and any threat to that will inevitably lead to serious deterioration of peace. Countries are always in competition among each other and development of technologies has given them the opportunity to ensure better security. The use of satellites is playing an important role in this case, from communication, security maintenance, navigation, scientific research, commercial purposes, climate monitoring to even developmental projects. Any disruption to this mechanism might lead to collapse of a huge range of phenomena and states might cross the threshold of hostility to a violent armed collision. The security dilemma prevailing among these nations are encouraging them to deactivate or restrict other nations' space control by developing weapons to destroy satellites, using space to run trial of weaponries, using dual-use robotic spacecraft to dismantle space machineries, hacking satellites to interrupt security system and developing variety of space-

targeted offensive weapons. The aggressive behavior of these countries is continuously escalating the tension and thus making space a possible ground for war.

The Space Force of the US is already functioning from 2019 with the sole motto to “organize, train, and equip space forces in order to protect U.S. and allied interests in space and to provide space capabilities to the joint force”¹. Similarly, China National Space Administration, Indian Space Research Organization, ROSCOSMOS of Russia and many others are showcasing the objective of serving mankind with better space opportunities, however, operating with the underlying cause of protecting their own interest and increase capability of space occupation. Though there has yet not been any direct confrontation, reaching towards the threshold is keeping its possibility of enlisting it as a grey zone conflict². An uneasy situation between traditional warfare and peace duality is developing where states are destroying their own satellites using Anti-Satellite Missile (ASAT) test, high-power lasers and other 'directed-energy' weapons just to display its power dominance beyond the visible ground and create the sense of deterrence for enemy states.

Recently India has emerged as the fourth country with its ASAT technology, Mission Shakti³, to exhibit its pride along with US, China and Russia, to show the world that it has entered the big clubs of space primacy. The US first came up with this technology in 1959 right after Soviet Union launched the first satellite into space, as a countermeasure to disrupt the capabilities of rival. Consequently, this led the Soviets



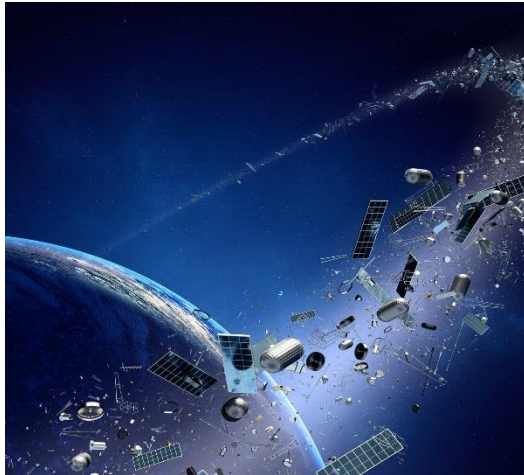
to develop their own ASAT technology to deter the threat from this cold-war opponent. In 1963 they conducted almost 20 tests of its “killer satellite” which could enter into “co-orbital method” to align with the target satellite and destroy it. China became the third country with this initiative

¹ Mission. Spaceforce.mil. (2021). Retrieved 13 May 2021, from <https://www.spaceforce.mil/About-Us/About-Space-Force/Mission/>.

² competitive interactions among and within state and non-state actors that fall between the traditional war and peace duality.

³ Pubby, M. (2019). Mission Shakti: *India tests its first anti-satellite missile system, codenamed Mission Shakti | PM Modi*. The Economic Times. Retrieved 16 May 2021, from <https://economictimes.indiatimes.com/news/politics-and-nation/pm-modis-big-announcement-india-successfully-tests-anti-satellite-weapon/articleshow/68592702.cms?from=mdr>.

in 2007, as predicted to exhibit its adversary United States that it has emerged as a worthy competition in military and deterrence (George, 2019). All these self-destructive activities of nations are passive methods to show that they have the capacity to attack an enemy's military weakness, reliance on satellites to maintain intelligence security and operations of high-precision weaponry. China and USA are already seeing each other as hostilities based on the issue of Taiwan, where US is predicted to support Taiwan by using precision-guided weapons to attack Chinese military targets (Zissis, 2007). China has already been accused of violating the 1967 Outer Space Treaty⁴ which was mainly ratified to restrict the test of weapons of mass destruction, mainly nuclear weapons in space.



The Outer Space treaty has failed to comprehend and exercise principles to control these violent behaviors of the states. It technically avoids the forbiddance of testing any kinds of weapon other than just WMD and thus allows the states to continue ASAT tests. The treaty also says that states will be liable for any kind of destruction in space and contamination by any machinery but that hardly seems to be the case. Part of the debris burnt from a Chinese spaceship was predicted to fall in the Indian Ocean, or in Maldives, which was assumed to have caused mass demolitions in the landing ground. Though news of huge damage was not found, China did not take any responsibility or ensure compensation for this act, which evinces the failed diplomatic implications states can practice regarding space. Countries are hardly following the act, which needs a major upgrade with the changing circumstances in the developing space technologies, thus threat of crossing the limit is increasing. Space is getting contaminated by debris from these acts and countries are also reluctant to act on it. The Indian ASAT test has been accused of interrupting the activities of the International Space Station and also causing production of huge amounts of debris which can affect the functional satellites. Though India has defended that the test has been conducted in the lower atmosphere, the amount and speed will mandatorily cause disruption (Li, 2019). This is

⁴ The Outer Space Treaty. Unoosa.org. Retrieved 17 May 2021, from <http://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introouterspacetreaty.html>.

known as the “Kessler syndrome”⁵ which is predicted to increase these debris to multi-faceted amounts and cause disruptions in the regulation of other countries’ machinery. The debris created from ASAT tests are also posing threat to rival, or non-rival countries, thus affecting security of human lives on earth.

With the changing climate on earth surface and threat of it being inhabitable, humans are trying to extend their civilization outside the natural settlement and thus launching expeditions to near planets and stars to make them habitable. Though extensive space occupation is still a utopia, an organization like, Space Force, working on ventures titled “The Sky is Not the Limit”⁶ surely indicates that there might be a future to it.



United States Space Force

NASA is also launching a project called “Artemis Program” where they have collaborated with other space organizations to put forward the next step of long-term presence on lunar ground with a motive to start economic privatization there and eventually develop human sustenance (“Artemis Program”, n.d.). China has emerged as the third country to collect lunar sample and they are propelling this project to generate fuel and is also planning to construct its own space station by 2022 and send a space probe to Jupiter by 2029 (DW, 2020) With the gap minimizing with US, by landing a rover on Mars, China has now become a major opponent to US in the

⁵ When the density of objects in Low Earth Orbit (LEO) is high enough that collisions between objects could cause a cascade where each collision generates space debris that increases the likelihood of further collisions.

⁶ *Space Force*. Airforce.com. Retrieved 24 May 2021, from <https://www.airforce.com/spaceforce>.

competition of space dominance which bears the threat of possible force deployment in space in the future to ensure full occupation.

Centering this capability of a “power show-off”, future political conflicts between India-China, China-US and US-Russia is taking an adequate amount of place in the grey conflict zone. These nations have passed the cold-war tension but have landed on ground, where they are claiming to be the highest hegemony in the power politics or are evidently the rising powers, and to assert that they are pushing their capacity even crossing the space. They are already sensing the increasing credentials of their oppositions, like US assessing the possibilities of Russia reaching its initial operational capability and have predicted the possibility of China forming military units for operational training with counter-space expertise. All these predictions and counter-predictions are creating situations implying that —states are spiraling upon their fear of annihilation and forming a ‘protective boundary’ for saving themselves, and possibility of crossing the threshold of armed conflict against each other is rising. Therefore, supposedly the space is going to be a significant arena where armed conflict and warfare might be extended by the states.

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