

Asian Space Race is Rhetoric or Reality: Implication for South Asia

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Abstract

South Asian region is now facing a new star because Space is an advantageous frontier for military uses. Space technology has two aspects on the name of security such as Militarization and Weaponization. These terms cannot properly differentiate the difference between security and threat for space. All current and previous super powers are working on space for more than five decades in the name of technology and security. Now these super powers are going to make grouping on space for getting hegemony not only on earth but also in space. As a result, the challenges in space have triggered and magnified the security dilemma for the South Asian rivals, interconnecting China, India, and Pakistan in the context of an international security complex. Indian foreign policy for other regional countries and applying strategy of Kautilya to defeat their enemy by using name of South Asian Satellite is new wave of race.

Keywords: Space Race, Satellite, ASAT, China, India, Pakistan.

Historical Background

Space is global heritage of human beings and has rich strategic importance equal to land, air and sea. With the evaluation of strategic thought, the logic of space power attracted powers and space became the area of conflict among them. History told us, that gunpowder used in 'battle field' after 150 years from its invention. According to Ajey Lele., the use of space assets to enhance war fighting capabilities is known militarization of space. It means: the uses of satellite for reconnaissance, intelligence and surveillance is called space militarization. There is difference between space militarization and weaponization. Space weaponization simply means the uses of satellite as weapon (Lele, 2013). The satellites orbiting around the world can be used for the Military purpose to detect the enemy's strategic location enhance the target acquisition, speed and improve the striking ability and gathering and processing the data. This dual use of satellite showed that mostly safe use for military applications or program.

Satellite is the main source of military to provide reconnaissance, Intelligence and surveillance URS activities of enemy's military. The unique military features of satellites clearly showed its importance as well as dependency on its. AS a result with the development of satellite the reliance on ground base system for reconnaissance, Intelligence and surveillance (IRS) dramatically reduced and satellite became the Integral component of military strategies to monitor the forces. Today, we cannot deny the military used of satellite and its growing strategic importance. During the

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cold war both super powers were heavily reliance on satellite to detect the military activities of each other. Similarly, The advancement in space technologies and the Revolution in Military affairs in 20th century has changed the discourse or nature of warfare as a result satellite became the necessary tool for military to operationalized and detect the enemies activities (Lutes, 2015).

The asymmetric Nature of nuclear and conventional forces, forced both super powers to explore the space to counter their rival. As a result space became the new territory of conflicts between super powers and both powers spent huge amount to take the duel advantages of space. During the cold war super powers have large number of striking and nuclear weapons and its delivery systems that included Intercontinental Ballistic Missile (ICBM) and also the near earth space base system. These strategic calculations resulted in worst-case scenario and two arch competitors realized the fact that development of space technologies is the need of hour. Therefore, after the launched of sputnik, It was written on the wall that USSR has the ability to launch the Intercontinental Ballistic Missiles (ICBMs) with the nuclear payload. The space race started in military competition and still main component of military.

Theoretical Framework

In the 20th century the art of war improve and the modern technologies are the outcome of two world wars that aspire other nations to enhance information technology, missile defence system, aircraft, command and control and develop nuclear weapons to maintain hegemony. The anarchic nature of international system where there is no night watcher for the protection of states. Force powers to build space power for their survivability. During the cold war both powers focused on balance of power which is most relevant with structural realism. John J. Mearsheimer quoted “The sad fact is that international policies have always been a ruthless and dangerous business, and it is likely remain that way, because every nation wants to top of the hill but nor achieve it” (Mearsheimer, 2014). In this regard, great powers always keen eyed and never sub ordinate their survival to any other goal including property. Due to this, the cycle of violence always continue from past to future, we can hope for peace but probably not because the great power always competes for power to dominate the others to ensure its survival. Consider this realism, the survivability of the state’s move around its security (Booth, 2011).

Structuralist, argued the anarchic nature of international system forces states to maximize their power to survive and states ensured its security by enhancing its (internal) capabilities. In this regard, Kenneth Waltz quoted “Hegemony leads to balance, and throughout all the centuries, contemplate is the preposition in the International relations by default” (Waltz, 2010). Offensive Realist John J. Mearsheimer argued that the anarchic structure of international system motivated states to act offensively and to seek hegemony. The desire for survival encourages states to behave aggressively and survival is the number one goal of great power. He further argued that states operate in anarchic system and there is no night watcher to

Asian Space Race is Rhetoric or Reality: Implication for South Asia

help them when they attack by others. Anarchy and mistrust creates fear among states that leads states to power maximize and enhance military capabilities for hegemony on the other hand it also creates fear among its rival and start to act as balancer (Mearsheimer, 2014). The aim of study is to analysis Asian Space Race and its implication on the security environment of South Asia through the leans of structural realism particularly (defensive-offensive).

Asian space race

During the Cold War both powers started a rigorous space race to shift the balance of power in their favour and realized that military satellites are the integral part of their forces. They fought in space like fought in earth; air and the seal thought both have nuclear capabilities. After the development of ICBM and launch Sputnik U.S feared of a surprise attack from the USSR. In this regard President Eisenhower gave importance to outer space for military purpose and stated the military space capabilities are now necessary for defence. He separated civilian and military space program and enhance the funds to achieve strategic gains (Dawson, 2017). The launch of Sputnik urged U.S to conquer the space and also pressed USSR to develop further space capabilities. In this context, USSR launched its first space reconnaissance 4(zenith-2) to take the photographic reconnaissance of U.S, which was equal to U.S CORONA. Zenit-2 series took image with the resolution of 10 to 15ms from the Low Earth Orbit (LEO) mission (Welck, 1988). Both powers saw each other's as 'Mirrors Images' and the fear of nuclear attack remain throughout the cold war.

President, Ronald Reagan proposed the idea of 'Star Wars' which resulted in the development of Strategic Defence Initiative (SDI) to encounter the any nuclear surprise attacks from USSR. At the end of cold war, U.S became the sole super power of the world as well as major inventor and user of space. President Bush announced his 'New World Order' with more global approach and proposed the idea of 'Global Protection against Limited Strike' (GPALS) to protect the U.S space interest and hegemony around the world. It was a new strategy to rule on space like rule on roads. In 1991, President Bush, reject the Strategic Defence Initiative (SDI) phase and established 'Global Protection against Limited Strike (GPALS)' and also talked on the limited use of ground and space based weapons and sensors system (Johnson-Freese, 2017). President Bush, new vision for space exploration and stated, we are pride of our space program and we counter all threat and going to make new plan and policies for protection and exploration of space. Our first mission is to establish international space station and counter all the future obstacles that limit our explorations. We never accept any act that limit our freedom in space and never hear any act that threatens our space assets (Krepon, 2008). The US space policy vision 2020 clearly showed and allowed (urged) the idea of space weapons. Michael Krepon quoted "The main feature and purpose of US space policy is to rule in space as rule on roads and the development of both offensive-defensive capabilities is the need of hour" (Krepon, 2008).

History of satellites proved that US Military used satellites during the cold war, Iraq War, and 9/11 War for intelligence gathering, communication, navigation and guided weapons of firing enhanced the war capabilities and showed its strategic importance as the fourth medium of warfare. Due to the weaponization and militarization of space, space becomes the major concern of the world that attracts the great powers to exploit the space for dual use. Weaponization of space involves in destroying or damaging the space assets either by killing satellite by satellites or either by ground base missile or Jammers (Li & Handberg, 2007). The Bush space policy was hawkish in its nature. US withdrawal from PAROS including India and space cooperation with indirect to counter China also started both international and regional space race. (Lele, 2011).

The growing utilization of space and the increasing demand of space for strategic gains resulted into an increased number of states around the Globe to exploit the outer space for military purpose or for their national interest. Space became the reality of mankind and states follow the old formula to conquest the space as new land or territory. Today the armies of the world are more depend on space satellites, communication, navigation, reconnaissance during the battle field management to locate enemy and guided the missile as well. During the cold war both powers exploited space for their military purpose that urged and effort other nations to develop and conduct their own Research and development program to utilize the space for both economic and military purpose. Today, more then 35, Nations have their own space Research Program Institution like US, Russia, India, Japan, Canada, Australia, Israel Pakistan, Europe and others (Jaspal, 2016).

China Space Program: Motives and Objectives

The great powers like China are viewing space less concerned with nuclear deterrence and security and more focused on its vast commercial and solar system (energy). China plans to develop Space-Based Solar Power Station (SSP) for gaining economic and energy gains. China aims to explore outer space and land on Mars and also plans for manned space station by (2020-22). The significance of space governance in future aspire China towards nationalism, expansionism and territorialism. Today, China is major space fairing nation with ASAT capabilities, specific future plans and ambitions in space. China has been made rapid and shocking progress in space activities (Goswami, 2018). China started its space program in early 1950 and established Chinese Academy of space and Technology (CAST). In 1970, China launches its first satellite (Don Fang Hong 1) into outer space, utilizing its Long March-I indigenous rocket. In 1958, China established China National Space Administration (CNSA). China main objectives and goals in space are to protect the global heritage of man and promote the national defence (Chunsi, 2008).

Asian Space Race is Rhetoric or Reality: Implication for South Asia

The Main Objectives of China Space Policy:

The Basic Objective and Goals of Eagle Space Policies:

- To strengthen the Eagle nation security and leadership and ensure the space capabilities to achieve foreign policy and political objectives.
- Enable Eagle unrestricted operations in space to protect Eagle interest there.
- Implement innovative robotic and human exploration to go beyond the world.
- Increase civil and scientific exploration and encourage other nation for peaceful and scientific use of space and stop any nation's action that limits Eagle freedom and its interest in space.
- To develop robotic technology for national security and economic gains (Seedhouse, 2010).

Chinese Space Policies and Goals:

- To use space for economic and scientific purposes.
- To promote social progress and human civilization for the benefit of mankind.
- Raise the scientific qualities of Dragon Peoples and promote the scientific culture.
- Protect the Chinese National Interest and strengthen the Dragon defence.
- To utilize space in expanding its national power.
- Peaceful use of outer space and prevent to weaponize it (Chunsi, 2008).

The Chinese National Space Administration (CNSA) is responsible to run national space policies and directing the 'Tiangong Space Station' (TSS), long march series rockets, the lunar mission and the manned space mission. It is also responsible to show and publicize space policies and run its civilian space program. In 1999, China developed and launched its first unmanned space craft Shenzhou-I and also launched Shenzhou-II in 2001 and its 3rd series Shenzou-III in 2002. In 2003, China successfully, launched its first manned space craft mission 'Shenzhou' (Solomone, 2006). In 2005, China launched and tested its 'Dog Neng-3' exoatmospheric vehicle which was capable to destroy the US space satellites and added this capability in the 'Tiangon 1 and 4' space labs and built the 'Tianzhou' cargo ship. Tianzhou is capable of on-orbit refueling and extending the logistic lines. This technology is to supply chain for space presence and the construction of on-orbit refueling and extends the logistic and the construction of on-orbit power station. China also plans to improve and modernize it. China is going to develop The Beidou-2 navigation system with the aim of regional navigation which will probably cover the One Belt-One Road (OBER) by 2018 and Global Coverage by 2020 (Goswami, 2018).

In 2007, China changed the whole discourse of space age and idea of new 'Star Wars' again emerged due to its successful launch of ASATs capabilities. It opened the eyebrows of U.S and rest of the world and a new space race started among powers. Some people argued. It was a message to US to sign Prevention of an Arm Race in Outer Space (PAROS) Treaty to stop space race and protect the common heritage of globe and other argued to counter the US influence in its region (Asia). These offensive-defensive programs from both nations are dangerous for the peace and security of the world (Moltz, 2010). The main reason behind the ASAT test was the growing Eagle Strategic Ties with India and Space Cooperation Pact between them urged the Chinese to increase their military might to counter these strategic ties. The second reason behind the test was Eagle policies to contain China by helping Taiwan. The third major reason was the Prevention of Arms Race in Outer Space Treaty (PAROS) which has the core issue in the Conference on Disarmament (CD), that still suffering from a stalemate, despite the collective Chinese and Russian PPWT proposal in 2008 CD. The fourth reason was the US Ballistic Missile Defence (BMD) program and the withdrawal from Anti-Ballistic Missile (ABM) Treaty in 2001, have completely changed the discourse of space race and the strategic relationship between US and China. Furthermore, the India-US including Israel had vetoed the PAROS treaty in CD that compelled Dragon to test its ASAT in 2007. Before the obstruction of PAROS in CD, Chinese were in favour of prevention of weaponization in the outer space but the strategic U.S-India collaboration and partnership has compelled it to conduct ASAT test (Tellis A. J., 2007).

China space program also move from Research and Development tool for diplomacy and economic gain and other countries urged US to make or sign PAROS with China to stop a weapon race in space. But US is not ready to sign any treaty that limit its interest and freedom in space. Therefore, the idea of 'Star Wars' is real and growing. China is emerging power in space and economy and it is the need of hour that US should engage with China in respected manner not for containing China and follows International norms and must stop all activities that can harm the peaceful use of space. Now time has come to stop arm race in space for the protection of global heritage (Hitchens, 2008). China ASAT test was a message to US to review its space policies and an agreement to prevent the use of space for Military purposes. Chinese growing space capabilities has serious implication for US military. Now US planned that we must prepare and enable its forces to dominate the field if China intentions are hostile. Joseph Nye quoted, "Consider China as enemy is making China enemy" (Nye, 2011). From past to present US space policies and its ambitions shows that US has the right to deny and deter other from building space capabilities on their other hand its develop same capabilities. This offensive strategy ultimate creates reaction that leads to conflict and conflict in space is dangerous for all not for one.

Now China Military planned to focus on electronic attack that targets communication system in geo synchronous orbit and Global Position System (GPS) in medium earth where other technologies are less effective. These electronic attacks are the painful for

Asian Space Race is Rhetoric or Reality: Implication for South Asia

US and China is also not pain free, it use to prevent U.S acquiring and reacquiring the data system. But the China's strategies are defensive to counter US offensive behaviour. This action and reaction leading both powers in future conflict in space that will harm the peace and security of the world now time has come, that nations force powers to stop on arm race in space and utilize space for common goods (Shixiu, 2008). China also plans to develop 'nuclear-powered space shuttles that will enable to mining of space based resources and construction of solar power stations. Xi Jin Ping stated we will turn China into a major space power and celebrate the day when China launches its first satellite (Space day). Ouyang Ziyuan stated "The moon could serve as a new tremendous supplier of energy and resources for human beings. This is crucial to sustainable development of human beings on Earth. Whoever first conquers of the moon will benefit first" (Goswami, 2018). Now China aims to explore moon and Mars and to establish Space Based Solar Power Station (SBPS) and a manned space station by 2022. Today China big and core national interest is to explore and land on mars. China National space administration secretary Yulong Tian stated that our major space goals are to launch robotic missions to the moon and conduct Mars return Mission by 2030 and also deep space exploration of Venus, asteroids and tipster.

Indian Space Program and its Perspective

The growing China space program is directly influencing Indian space capabilities and space has become a top political priority of India due to the strategic interest of both countries. India started its space program for the scientific and economic development of its population and to overcome the strategic requirements of the country. Now, its space agenda has militarized orientations due to China quest for space militarization and space weaponization. The roots of the Indian space can be traced back 1960s; however, until the 1990s, no significant achievement was gained except for the establishment of some basic infrastructure and the contract with Russia for cryogenic engines for space launch. In early 1980, Integrated Guided Missile Development Program (IGMDP) integrated with R&D and BMD was based on the IGMDP, as most of the missiles were built under this establishment. The two-staged BMD is primarily designed and focused on interception of Pakistani and Chinese missiles and the second tier of its BMD development plan was capable of reaching at the heartland of China. The reason behind Indian BMD, IGMDP, and space endeavors was a perpetual confrontational relationship with China and Pakistan (Gopalaswamy, 2014). The proliferation of ASAT, in fact, is a challenge for international peace and security and increases the prospects of horizontal proliferation of ASAT technology in South Asia. Although India has not developed an ASAT capability but it is going to develop an ASAT capabilities in future which can be a byproduct of ICBMs. Chinese space journey are mostly considered as an economic and military challenges faced by India and it is going to build cooperation with Bangladesh and Sri Lanka. India signed the NSSP with the US and US transfer the dual use space technologies to Indian Space Research Organization (ISRO) and its four subsidiaries, including the Indian Defence

Research and Development Organization which improved its BMD and space programs (Jaspal, 2012).

The main reason behind all these steps is to counter the Chinese space capabilities and step towards the regional hegemon. The second reason behind was China assisted Pakistan in space program, for example Pakistan launched its first communication satellite, PAKSAT-1R , into orbit with the help of China. Furthermore, India is balancing its strategic relationships with China and the United States from a realpolitik perspective in how these two countries conceive of India's role and relative importance in their broader strategies (Lele, 2013). According to Paikowsky, "India and Israel shared similar threat and interest. Israel wants to enhance Indian space power for a stronger and better balancer in South Asia and Asia in general. This will serve the short and long term interest of Israel. Now, Nations realized that space is source and symbol of power. Today India launches various satellite with the help of Israel" (Paikowsky, 2011). India recently has launched its Agni-v (ICBMs) that was capable of reaching almost all parts of China and its space establishment further plans for to improve its BMD system for strategic military objectives under the Department of Defence and Department of Organization (DRDO). Furthermore, the Chinese ASAT was considered a highly offensive and confrontational act by the Indian space and defence community and transformed the Indian perspective about space militarization and weaponization. India is going to utilize space for military purpose and started to build ASAT capabilities that can change the nature of warfare in Asia and particularly harm the stability of South Asia. India attention to counter China and play the role of balancer further triggered the Asian space race that will destroyed the peace of region. The arm race in space lead nations to good bye disbarment and peace and plunged in perpetual nightmares (Lele, 2013).

Pakistan's Space Program and its Perspective

The space cooperation between China and Pakistan is another milestone in longstanding relationship and to strengthen this twenty-year-old space cooperation, Pakistan's first communication satellite in the geostationary orbit was launched from the Xichang Satellites Centre in Sichuan Province, which shows much-developed space cooperation between the two countries. With the revolution in military affairs and the advent of modern technologies we have entered into fourth generation of warfare and space whose strategic importance cannot be denied, has also become the fourth medium of conflict in the region (Lele, 2013). Now, Pakistan stands with China, in the idea of peaceful use of outer space. Pakistan military strategies to maintaining a credible minimum deterrence vis-a-via India and planning has always been India centric, and India has always been Pakistan's number one adversary. Although the Indian advantageous position in the conventional weapons, which has created a huge disparity; but the role of nuclear weapon and possession of missile in the both countries also has made satellite. If India is able to develop its ASAT capability in future, then it will be destabilizing for the peace and stability in the

Asian Space Race is Rhetoric or Reality: Implication for South Asia

region. It will start the new arms race in the region to hostile the fragile peace in South Asia (Jaspal, 2016).

Outer Space and Global Security:

The human space exploration and activity in space has been guided by the principle of the peaceful use of outer space but the peaceful purpose has not still defined clearly. The idea of peaceful use of space initiated by Eisenhower but never defined clearly. Powers started space exploration for commercial and scientific purpose but on the other hand powers continued to develop military space capabilities and deploy the weapons in space. But recent developments are against the peaceful use of space and states are going to militarization of space towards the weaponization of space. Now nations want to protect the common heritage and force on peaceful commercial use of space.

In 2003, The Bush administration withdrew from Anti-Ballistic Missile (ABM) treaty and started to expend military uses of space including war fighting capabilities into space and also committed to deploying multi-layered missile defense and testing space-based elements. Now nations want to stop to weaponize space and support the United Nations Resolution on Presentation of “Arm Race in Outer Space (PAROS), But to date there is still no agreement on ways and means of achieving such a ban. In this context space became the area of conflict among powers and they were going to a non-stoppable space race (Seedhouse, 2010). The study already been conducted to infer the library use among postgraduate students (Jabbar, 2019).

Conclusion

The anarchic nature of international system compelled states is to enhance their power and security to ensure their survival and the structural conditions allow states to maximize relative capabilities and look for opportunities and power to become hegemon and their ultimate goal is to become hegemon. In this context, the states always want to develop power-generating capabilities including their military might capabilities. The military utilization of space by great power is also deepening and the emerging competition among Asian powers and powers as well in outer space would convert it into a surrogate battle field or war. These emerging space weapons program also attract the strategic competitor like Pakistan and India. The space has been militarized and intensified efforts to integrate the utilization of space in land, air and naval operations. Today the militaries of the world are widely relying on space satellites for Navigation, Intelligence and Reconnaissance with Global Positioning System (GPS). Therefore space is vital part of Military activities and today more than 35 countries have their space research institutions programs. In this regard, China has adopted a more defensive approach towards the militarization of space and has the policy to avoid weaponization of space. The strategic space cooperation between India-US in 2005, and veto from Prevention of Arm Race in Outer Space (PAROS) Treaty including Israel force China and Pakistan to take any defensive measure, and

Fazal Abbas Awan

China Anti-Satellite Test in 2007 was clear message to US to bring on table to sign (PAROS) Treaty. In this regard, there is a need to reevaluate and strengthening the PAROS Treaty. The role space exploration for the economic development of the nations is well established. Similarly, it has also played a significance part in intensification of military capabilities of the nations. Pakistan, in this regard, needs to boost up space explorations efforts so that it can also foster its economy. On the other hand, to maintain its credible minimum deterrence in the region, an efficient and reliable surveillance and early warning system in the outer space is the need of hour. Therefore, it has to build satellites for early warning and surveillance.

Asian Space Race is Rhetoric or Reality: Implication for South Asia

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Fazal Abbas Awan

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