



IS SPACE WEAPONISATION INEVITABLE?



Gp Capt TH Anand Rao

Senior Fellow, CAPS

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We all agree that space is currently militarised- but not weaponised. However, the defining line between the two is fading away. The dual use conundrum has blurred the lines in a way that allows states to pursue covert agendas on utilisation of space for national security. Directed Energy Weapons (DEW) like laser systems which have been used as terrestrial-to-space targeting systems are Anti-Satellite systems (ASAT), but their classification as space-weapons is debatable. The commonly used military applications of space assets, like, communications, imagery and navigation are all roles towards enhancement of military capabilities, but have now transitioned from enhancement to being enablers of military power. The recent space activities suggest the beginning of a new era where space is becoming the medium itself for war fighting and space denial and offensive space force projection is a possibility in the near future.

While mutual mistrust amongst the superpowers and cold war rivalry was the genesis of the first space race, what we see today is a space race for different reasons. Space technology, national space exploration policies, socio-economic dependence on space and commercial interests seem to have pushed the terrestrial limits of military superiority. Space commerce and industry have now driven the quest for military superiority into space, such that space weaponisation will now be a fallout of the desire to protect a rapidly expanding space economy. As space technologies develop further to sustain the quest for space exploitation and a burgeoning space commerce, space weapons will find their way into national space policies and doctrines, especially in the absence of clearly defined laws prohibiting space weapons. The pursuit of national interests will compel a space race 2.0, including space dominance through offensive and defensive space capabilities.

Freedom of operation in space has been recognised as the pre-requisite for sustaining a space economy as well as for providing unrestricted support to military functions. While space is the dominant medium capable of affecting conventional warfare decisively, emerging ASAT capabilities of

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opposing space faring nations could undermine this critical aspect. Space Control is thus being pursued by the space super powers as a means of ensuring freedom of operation in space.

Leading space faring countries like US, China and Russia are now visibly pursuing active and passive space control technologies. Efforts towards a space based BMD and DEWs are drivers of space weaponisation. US National Security Strategy clearly prioritises defence of its space assets and freedom of operation in space. Space capabilities also figure as a strategic domain where the US seeks to renew capabilities and a competitive advantage. This is a significant shift from US national space policy of 2010, which talks about strengthening stability in space by promoting its peaceful use. The US National Defence Strategy of 2018 in contrast has put countering China and Russia at the core of America's new priorities, listing China and Russia as paramount security threats to the US. These developments are indicators of a greater power competition, shifting the focus from terrorism. China's space adventurism in the past decade, and its growing space clout which is visible in its reaching the third slot in the world space order is an indicator of the reason for China being designated as a strategic competitor. It is not surprising that China and Russia along with US are the only countries to have tested ASATs and are actively pursuing ASAT technologies. Other space faring countries like Iran and North Korea may not be far behind.

As a counterview, space has enabled global visibility in terms of communications and intelligence gathering. This has given the possibility of everyone watching everyone. The transparency can be said to be nurturing global stability. Weaponisation of space creates global instability, there being no limits to the extent of space weaponisation and no means of assessment either. This is bound to give rise to space posturing and will inevitably result in escalation and pre-emption. Also, the lucrative prospect of orchestrating wars through and in space will make conventional militaries ineffective or worse still; push them back to the archaic role of occupying forces.

Orbital debris and lack of any credible debris mitigation techniques is probably the single most prevailing reason for preventing space weaponisation. The single largest source of debris has been through intentional satellite explosions through ASATs and accidental collisions in space. There is a growing concern in the international space community due to the increasing number of operational space systems and a limited space situational awareness which may result in accidental collisions and chain reactions of exponentially increasing orbital debris. A space regulation prohibiting launch of space objects without reliable debris mitigation procedures is an option which could prevent further escalation of debris.

The real problem lies in the absence of any UN mandated treaty which clearly defines unacceptable weaponisation of space and institutes clauses for prevention and verification. The biggest roadblock to any stringent international treaty bringing more transparency and weapons control to outer space is the US. The US would not want a space weapons control treaty as it would limit their National Missile Defence architecture and undermine their hegemony in space control technologies. Nations with existing space weaponisation programmes need to first take the lead in decommissioning existing offensive space R&D through mutual consent which is a distant possibility. Expansion of the Outer Space Treaty (OST) to prohibit offensive use of space and strengthening existing legislations through an internationally acceptable treaty is being deliberated since 2008. However, unless the top three space faring nations take a step back, weaponisation of space may be a reality.

Are space weapons inevitable? Human nature, national ambitions and geopolitics seem to push us towards it. Every medium – land, sea and air – has seen conflict. There's no reason why space should be any different. The quest for military supremacy in all the dimensions of warfare, unrestricted access to space based assets, the desire to pioneer space exploitation and a viable deterrence value created through space are all pointers towards an impending weaponisation of space.

(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies [CAPS])

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