



A Rightful Place in Space

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(This editorial is based on the article '[A Rightful Place in Space](#)' which appeared in 'The Indian Express' on 29th March, 2019. The article talks about the recent A-SAT test undertaken by India and the wider implications it may pose globally.)

India has one of the oldest space programs in the world—in operation for more than five decades—and is considered an established space faring power. Today, the country is gradually reorienting its space program towards national security.

India's recent successful anti-satellite (ASAT) missile test adds a new chapter in its defence preparedness. Before India, only three countries, namely the US, Russia and China, had demonstrated this capability.

While the test can be described as a giant technological and strategic development for the country it also emphasise India's attempt at becoming a major space power. The test has a greater geopolitical connotation given India relationship with its neighbour China- another nation sharing the same technology.

It is more important therefore to analyse the rationale behind conducting the test.

Anti-Satellite Missile Test

It is the technological capability to hit and destroy satellites in space through missiles launched from the ground. The technology is aimed at destroying, if necessary, satellites owned by enemy countries. The test, however, can be carried out only on one's own satellite.

ASAT had receded from the debates even in the security circles until China conducted a test in January 2007. The tests conducted by the US and USSR in the 1960s were seen as a legacy of the Cold War era power politics and were even forgotten. Chinese attempt at destroying one of its own ageing **satellites again brought to fore the need to ensure space assets of nations.**

Significance of ASAT

Satellites are extremely critical infrastructure for any country as large numbers of crucial applications are satellite-based. This include navigation systems, communication networks, broadcasting, banking systems, stock markets, weather forecasting, disaster management, land and ocean mapping and monitoring tools, and military applications.

Destroying a satellite render all these applications useless. It can cripple enemy infrastructure, and bring it down, without causing any threat to human lives.

Issue of space debris

A satellite that is destroyed by a missile disintegrates into small pieces, and adds to the space debris. The free floating space debris is a potential hazard for operational satellites and colliding with them can leave the satellites dysfunctional.

With countries launching more and more satellites, each one of them being a strategic or commercial asset, avoiding collisions could become a challenge in the future.

India is an active proponent for debris mitigation guidelines for space. Hence, the step can be seen as going against the principles of ensuring that space would not be littered by the human-made debris.

An ASAT in itself cannot be called defensive system that could 'safeguard' space asset. Instead, it is an offensive system that could solely be used for retribution in response to an attack on India's space assets. In that sense, the capability can be seen as an aggressive step given India's volatile neighbourhood.

Entry into an elite club

Only three countries before India namely the US, Russia and China, has this capability. It requires very advanced capabilities in both space and missile technologies that not many countries possess. With this test India has attained the capability for exo-atmospheric interception of long-range missiles in their mid-course.

India's significant progress in the domain of space in the last two decades warrants a system that safeguards it from future potential threats. India's Mangalyaan and Gaganyaan programmes, its legacy of 102 spacecraft missions and criticality of the space programme makes it all the more vital for India to ensure their security.

It not only will increase India's capability to shoot down military and civilian communications, and early-warning satellites during a crisis or war, but will also help advance India's missile interceptor programme. The test therefore is a demonstration of technological capability as well a communication of deterrence message to any possible adversary.

India by launching ASAT has already taken a head start in space, even before norms or order regarding the use of ASAT could be established where only select few superpowers could control it. This would help India from getting caught in a 'NPT' (Nuclear Non-Proliferation Treaty) like situation.

Global Rules and demands related to Space

Almost every country agrees that space must not be used for wars and has spoken against weaponisation of space. There are international treaties governing the use of space, that mandate that outer space, and celestial bodies like the Moon, must only be exploited for peaceful purposes.

Outer Space Treaty of 1967

- India is a party to the Outer Space Treaty. The treaty prohibits countries from placing into orbit around the Earth "any objects carrying nuclear weapons or any other kinds of weapons of mass destruction".
- It also prohibits the stationing of such weapons on celestial bodies, like the moon, or in outer space. The moon and other celestial bodies shall be used by all state parties to the treaty exclusively for peaceful purposes.

There are four more multilateral treaties that deal with specific concepts agreed to in the Outer Space Treaty:

- The Rescue Agreement of 1968
- The Space Liability Convention of 1972
- The Registration Convention of 1976
- The Moon Treaty of 1979

The United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) oversees these treaties and other questions of space jurisdiction. None of these, however, prohibits the kind of test that India carried out recently.

The international community has been debating for the need to introduce transparency and confidence-building measures in outer space activities (TCBMS). In this regard, European Union has also prepared a draft code of conduct (CoC). However, major powers are yet to agree on the idea of establishing a CoC conduct.

Another important idea that has been put on the table jointly by Russia and China is the Prevention of the Placement of Weapons in Outer Space (PPWT) instead of only Weapon of Mass Destruction which is resisted by US and the EU.

Way Forward

In the present times with nations fighting a race in getting a strategic edge, India has merely acknowledged that space may not remain a purely civilian domain in the near future. It is therefore important for India to improve upon its capabilities without which, it would lag in a critical area.

Space however must be used only for peaceful purposes and any weaponisation of Outer Space cannot be tolerated in the larger interest of people. The safety and security of space based assets should be ensured through international cooperation.
