A Rightful Place in Space

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This article is related to General Studies Paper -III (Science & Tech) | **The Indian Express** | **29 Mar., 2019**

"The ASAT missile test is a demonstration of technical competence and is a message of deterrence. It strengthens the claims of India being a party for international negotiations on space."

India's successful anti-satellite (ASAT) missile test added a new chapter in its defense preparedness on 27 March 2019. The global responses were mixed on this, which is not surprising. At this point, it is more important to analyze the logic behind this test without being influenced by political noise. It is important that the relevance of the test should not get affected by the demands of electoral politics.

Prior to India, only three countries, namely America, Russia and China, have demonstrated this capability. The tests conducted by the US and USSR in the 1960s were seen as the legacy of the Cold War era politics and it was forgotten. China tested without any provocation in January 2007. It destroyed one of its own old weather satellites, whose weight was 750 kilograms at an altitude of 850 km from the surface of the Earth. This created a significant amount of debris in space, which is still present and there is danger for every satellite including Chinese satellite in the lower orbit of the Earth. In comparison, India tested at a very low altitude of about 300 km, which means that a large part of the debris will enter the Earth's atmosphere due to gravitational pull and they will burn due to high temperatures. Simply put, Chinese test produced an abundant amount of the debris in space, while India can be told that it conducted a debris less test. It is important to note that India is actively promoting thedebris mitigation guidelines space. Therefore, India can not go against the principle of keeping the space intact from man made garbage.

Should the incident of 27 March, 2019 be treated as India's response to Chinese test of 2007? The answer is both yes and no. Conducting this test after 12 years of Chinese testing make it clear that this is not India's knee-jerk reaction to Beijing. India has made remarkable progress in the field of space in the last two decades. Now India has a good number of satellites in space and it is in the interest of India to ensure their safety. Of course, this test is a message to India's opponents that the Indian satellites present in the lower orbit of the Earth have a safety cover. Therefore, this test should be seen as a demonstration of technical ability as well as deterrence message to any opponent; China is just one of them. It should be emphasized that a nation does not need to become a major space power to develop ASAT capacity, only requires efficiency in the missile sector.

India may have also considered the history of non-proliferation talks. Experience in global negotiations on nuclear weapons reveals that the NPT is essentially about a group of five nuclear weapons-rich nations that unitedly set policies for the rest of the world. The NPT allows only five nations of the world to have nuclear weapons, and the rest of the world is considered a secondary citizen. Clearly, India was keen to ensure that such a situation does not arise during any negotiation on outer space. It is not in the interest of India that the United States, Russia

and China decide the fate of non-proliferation talks in relation to space. After this, these three nations have to be associated with India; Successful ASAT test has given India its true position on the high table.

For almost a decade, the European Union (EU) is debating the need to present transparency and confidence building measures in external space activities (TCBMS). In this regard, it has also drafted a Code of Conduct (CoC). In October 2012, global talks for an international code of conduct (CoC) for outer space also started. In a period, in response to various negotiations, the initial draft was amended four times. However, the major powers still do not agree on the idea of setting up the code of conduct. Another important consideration that has been jointly introduced by Russia and China is the prevention of weapons deployment in space, the threat or use of force for outer space objects. The US and the European Union are not interested in debating this mechanism, however, India is open to this idea and is ready to debate it under the UN system. All this indicates that India is keen to make a rule-based mechanism in space.

Does India want to weaponise space to prove its credentials as space power? No, India has always been against weaponising the space. India thinks that space is important for the army, but only as an instrument to help and improve its existing military capabilities. Taking the warfare to space is not a challenge for India. From the days of Vikram Sarabhai, India's policy has been to use the space for socio-economic development

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Anti-Satellite Missile Test (ASAT), Mission Shakti

Why in the discussion?

- On 27th March, India conducted a successful anti-satellite missile test (ASAT), mission shakti.
- What is anti-satellite missile test (ASAT)?
- ASAT is a technical capability to hit and destroy satellites in the space through missiles launched from the ground.
- In 1959, the United States conducted the first anti-satellite missile test (ASAT). The then Soviet Union tested it a year later.
- After this, these two countries made a series of such tests until the early 1980's.
- In 2007, China tested the Anti-Satellite Missile Test (ASAT).
- India is the fourth country in the world to test anti-satellite missile.

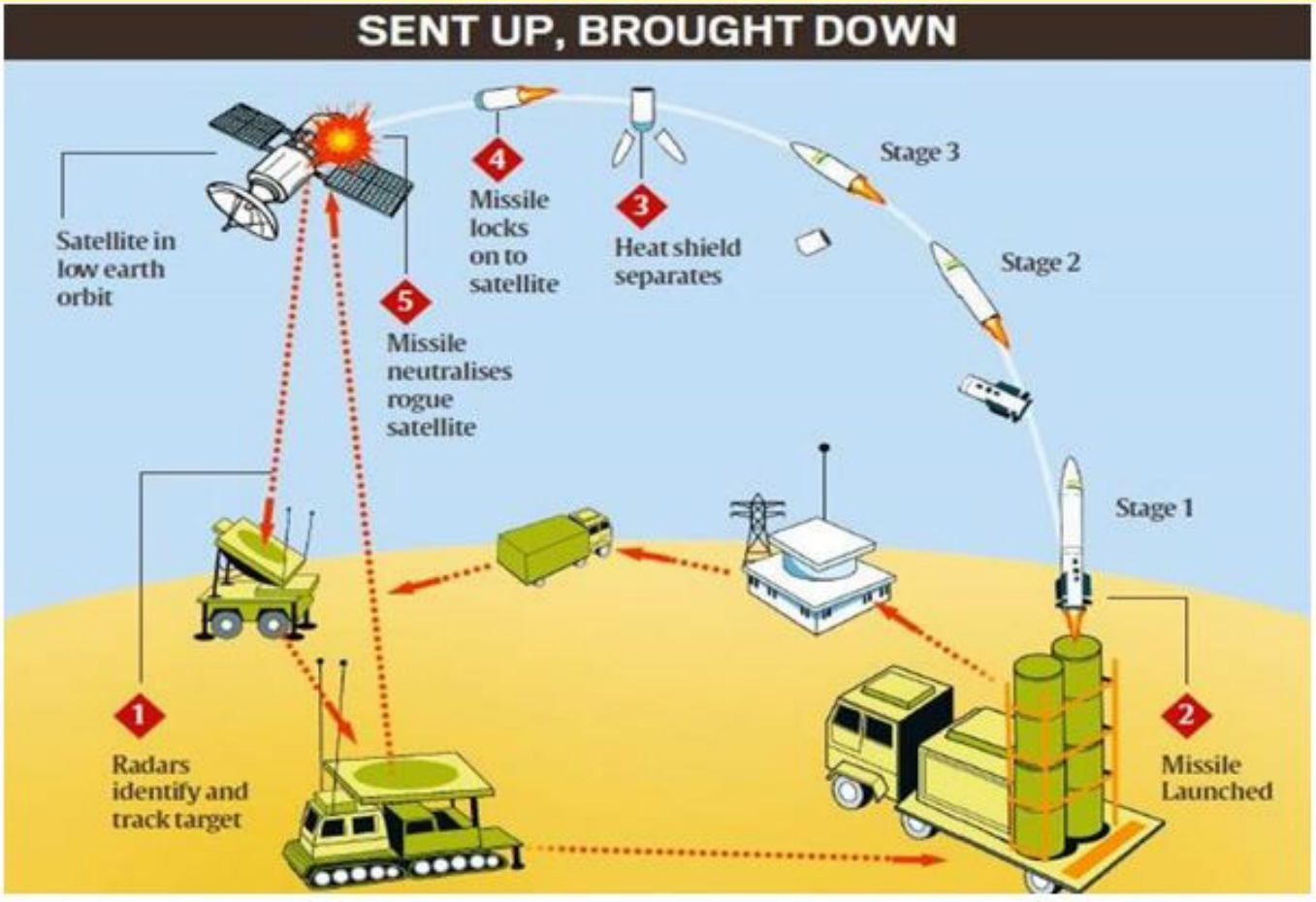
What is the objective of ASAT?

- Its purpose is to destroy the satellites owned by the enemy countries when necessary.
- Due to the large number of satellite based important applications ,the satellite is the most important infrastructure of any country these days.
- Some important applications are like- navigation systems, communication networks, banking systems, weather forecasts, disaster management, and military applications.
- By destroying a satellite, these applications will be useless.
- Thus, it can cripple the enemy's infrastructure without causing any threat to human life.

What is mission power?

- There are currently a large number of satellites in space, many of which have lost their utility and and orbiting aimlessly.
- One such satellite was chosen for the current test of India.
- A Missile was launched from Dr APJ Abdul Kalam Island Launch Complex near Balasore in Odisha.

- It hit a predetermined target, which was a futile Indian satellite that was orbiting at a distance of 300 km from the surface of the Earth.
- According to official sources, the satellite which was selected for this test was Microset R; it was a microscopic satellite launched by ISRO in January 2019.



Expected Questions (Prelims Exams)

1. Consider the following statements :-

1. India is the 5th country in the world successfully conducted the anti-satellite missile test (ASAT).
2. USA, Russia, China and Israel has ASAT capacities other than India.

Which of the above statements is/are correct?

(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2

Expected Questions (Mains Exams)

Q. What is Mission Shakti? How it strengther the India's position in space?

(250 Words)

Note: Answer of Prelims Expected Question given on 28 Mar. is 1(a)