



Mission Shakti

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India has tested the Anti-Satellite System(A-SAT) from **Dr A P J Abdul Kalam Island**, formerly known as Wheeler Island, an island off the coast of Odisha.



- The test was **named as Mission Shakti**.
- It has successfully destroyed a live satellite in the Low Earth Orbit(an altitude of 300 km).
- With this test India is now in the league of three countries after the U.S., Russia, and China to have such technology.

Anti-satellite (ASAT) System

- It is **missile-based system** to attack moving satellites.
- It is of 2 kinds— based on launching from the ground or from planes.
- Defence Research and Development Organisation (DRDO) has -developed Anti-satellite (ASAT)completely indigenously.

Significance

- A large number of crucial applications are now satellite-based. These 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 would render these applications useless. **It can cripple enemy infrastructure**, and without causing any threat to human lives.
- It was aimed at strengthening the capability to safeguard space assets and India's overall security.

International Reactions on ASAT Test

- **China** has said that it hopes that all countries would **uphold peace and tranquillity in the outer-space**.
- **Pakistan** has said that Space is the common heritage of mankind and every nation has the responsibility to avoid actions which **can lead to the militarization of this arena**.
- **US** has said that it will continue to pursue shared interests in space and scientific and technical cooperation with India, including collaboration on safety and security in space. However, it **expressed concern over the issue of space debris**.
- India's Stand:
 - Ministry of External Affairs has stated that India is against the weaponization of Outer Space and supports international efforts **to reinforce the safety and security of space based assets**.
 - India has always maintained that space must be used only for peaceful purposes.

International treaties Regarding Outer Space

- **UN Outer Space Treaty 1967**: It prohibits only weapons of mass destruction in outer space, not ordinary weapons. India ratified it in 1982.
- **UN Transparency and Confidence Building Measures(TCBMs)**-It includes registering space objects with the UN register, pre-launch notifications etc. India is sharing these details with UN.

- **Inter-Agency Space Debris Coordination Committee (IADC)** is an international governmental forum for the worldwide coordination of activities related to the issues of man-made and natural debris in space.
India participates in IADC-activities with regard to space debris management, undertaking SOPA (Space Object Proximity Awareness and COLA (Collision Avoidance) Analysis.
- India has supported UN resolution on **No First Placement of Weapons on Outer Space**.

Low Earth orbit

- A Low Earth Orbit is an Earth-centered orbit with an altitude of 2,000 km or less.
- Most of the manmade objects in space are in LEO.