

UPSC Preparation

Mission Shakti - Definition, Objectives & Significance (UPSC Notes)

India conducted an anti-satellite missile test on 27th March 2019 which was dubbed as Mission Shakti. The test successfully destroyed a live satellite in the Low Earth Orbit. Mission Shakti became a significant achievement for India for it brought the nation in the row (4th position) with US, Russia and China to successfully interdict and intercept a satellite in outer space based on complete indigenous technology. Read on to get important facts about Mission Shakti for the [IAS Exam](#) preparation.

Candidates should not confuse Mission Shakti with Mitra Shakti and Mission Shakti of Odisha state. While Mission Shakti is India's A-SAT, [Mitra Shakti](#) is Indian Army's Bilateral Exercise with the Sri Lankan Army; Odisha's Mission Shakti is an exclusive department for Self-Help Groups (SHGs) in state government which caters to the need of rural women associated with around six lakh women SHGs of the state.

Mission Shakti - Background

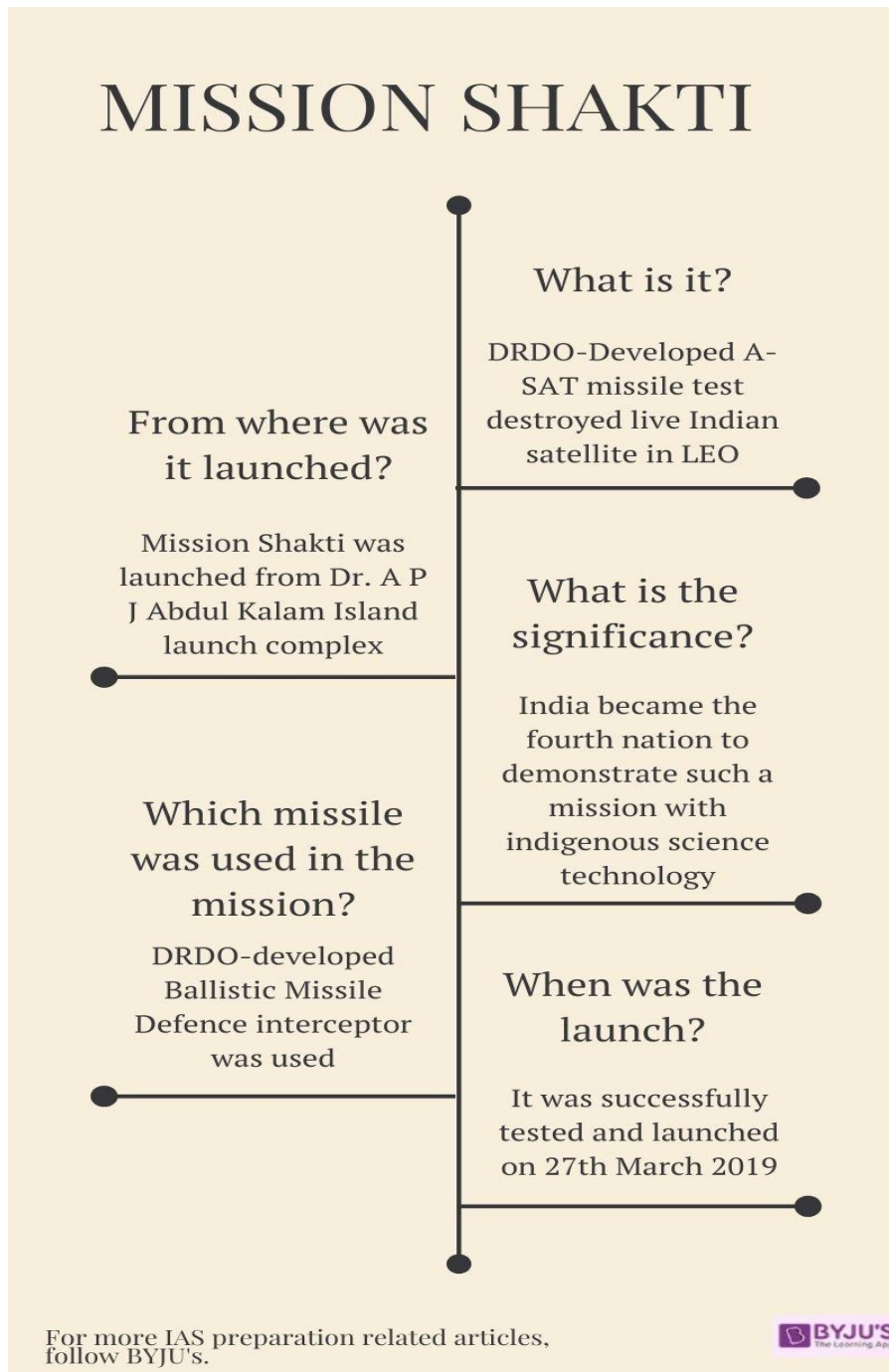
What is Mission Shakti?

On March 27, 2019, an anti-missile satellite system that was developed by India's R&D organization, DRDO (Defence Research and Development Organisation) was tested to destroy a live satellite in the Low Earth Orbit. The test was called Mission Shakti.

Why was Mission Shakti conducted?

India like other nations has her space assets which needs to be protected and safeguarded. Also, India has space programmes that are rapidly growing. The Mission Shakti was conducted to demonstrate India's capability to interdict and intercept a satellite in outer space based on complete indigenous technology.

Facts about Mission Shakti for UPSC



The table below mentions the relevant facts about Mission Shakti for the IAS Exam:

Mission Shakti - Facts for UPSC
With the successful Mission Shakti, India has joined the space faring nations' group that includes US, Russia and China. India is now the fourth country to demonstrate such a test

successfully.

The Anti-Satellite Missile test was conducted on **India's own and existing satellite** that was in operation in the Earth's lower orbit.

- The satellite that was chosen to be destroyed by the Mission Shakti was the one that had outlived its utility and was orbiting in space without any use. However, the satellite was live.
- The satellite that has been destroyed was 300 kms away from Earth.

To conduct the test, India had to send a **Notice to Airmen (NOTAM)** to airline authorities of different countries to intimate them about the missile test it is going to conduct:

- NOTAM - A notice containing information essential to personnel concerned with flight operations, to alerting them of potential hazards along a flight route or at a location that could affect the safety of the flight

The test Mission Shakti **did not create any space debris** as it was conducted in the Earth's lower atmosphere. The debris created by the test fell back on Earth within weeks.

Ballistic Missile Defence interceptor of DRDO was used in Mission Shakti. It is part of the ongoing ballistic missile defence programme.

The Mission Shakti test demonstrated India's intention of **enhancing national security** and took India a step ahead in its space development capabilities.

Important Terms related to Mission Shakti

As the candidate reads about Mission Shakti, he/she has come in contact with some important key-terms related to the test. These terms are also important for the IAS Exam specifically important from the [UPSC Prelims](#) perspective. Read about those terms in the table below:

Mission Shakti - Important Terms	
Term	Meaning
LEO	It is referred to as a Low-Earth Orbit that is closer to Earth. The altitude of LEO is less than 2000 km. Most of the outer space man-made objects are found in LEO. This orbit is chosen as for a satellite to be placed here requires the lowest amount of energy.
A-SAT	It stands for Anti-Satellite Weapon System which, as the name suggests, is used to destroy satellites. It is not a new venture. In world history, in the times of the Cold War, the US has used A-SAT. Also, China in 2007, has used its A-SAT. Note: No country has used an A-SAT against any other nation.

The Mission Shakti is important for the UPSC Exam, from the perspective of Science & Technology and developments in the same. Check below-mentioned links which are similar to this topic and also helpful for GS-III preparation:

Indian Spacecrafts for Science & Technology Preparation	ISRO
List of Indian Satellites	GSLV MK-III

Space programmes are important to be read and make an important segment of the Science & Technology syllabus of Mains GS 3. Aspirants can get previous year [Science & Technology questions of UPSC Mains GS 3](#) for analysis and practise.

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