

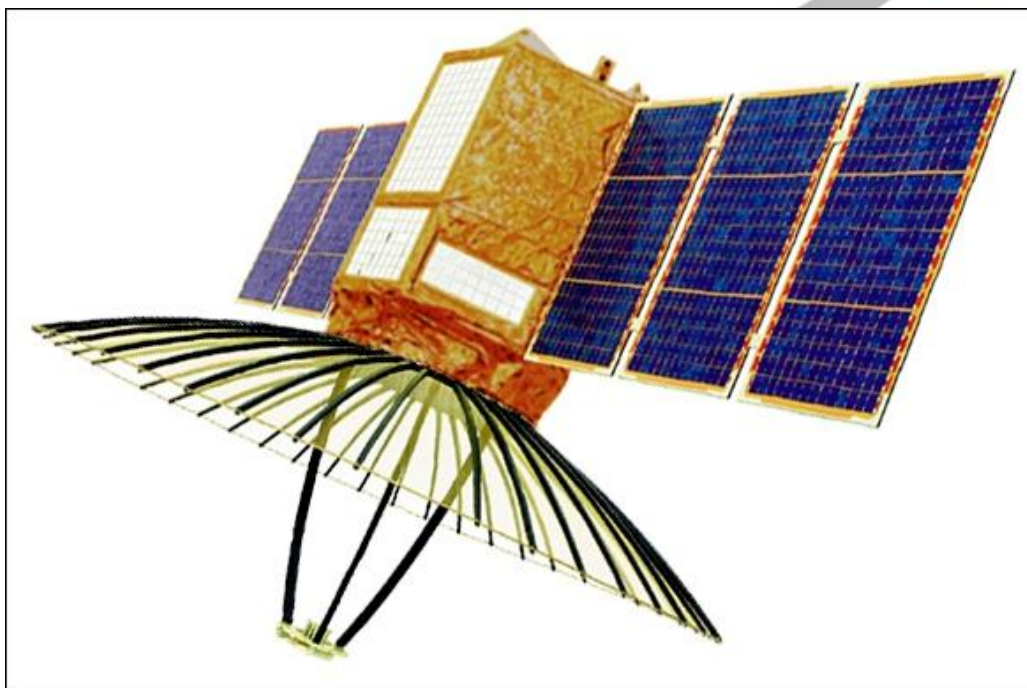


## RISAT-2

### Why in News?

Recently, the [Indian Space Research Organisation's \(ISRO\) RISAT \(Radar Imaging Satellite\)-2 satellite](#) has made an uncontrolled re-entry into the Earth's atmosphere at the predicted impact point in the [Indian Ocean](#) near Jakarta.

- RISAT-2 is India's first "**eye in the sky**" which keep surveillance on the country's borders as **part of anti-infiltration and anti-terrorist operations**.



### What is RISAT-2?

- **About:**
  - The principal sensor of Risat-2, considered a 'spy' satellite, was an X-band [synthetic-aperture radar](#) from Israel Aerospace Industries.
  - Risat-2 was built more quickly following the 2008 Mumbai terror attacks due to delay with the indigenously developed C-band for Risat-1 satellite. The satellite, which was **India's first dedicated reconnaissance satellite**, possessed day-night as well as all-weather monitoring capability.
    - It was also **used to track hostile ships at sea that were deemed a military threat**.
- **Launch:**
  - Risat-2, weighing about 300 kg was **launched on April 20, 2009**, by the PSLV-C12 launch vehicle.

▪ **Significance:**

- Risat-2 **provided beneficial payload data for over 13 years.**
  - Since its injection, Risat-2's radar payload services were provided for **various space applications.**
- Risat-2 is a clear example of **ISRO's capability to carry out spacecraft orbital operations in an efficient and optimal way.**
  - As Risat-2 re-entered within 13.5 years, it complied with **all necessary international mitigation guidelines for [space debris](#)**, showing the space agency's commitment towards the **long-term sustainability of outer space.**

## What are the Upcoming Projects of ISRO?

- [Gaganyaan](#): Indian Human Spaceflight Programme.
- [Aditya-L1](#): To Study the Sun's atmosphere.
- [NASA-ISRO Synthetic Aperture Radar Mission](#): To study hazards and global environmental change.
- [Shukrayaan-1](#): Orbiter to Venus.

## UPSC Civil Services Examination, Previous Year Question (PYQ)

**Q. With reference to India's satellite launch vehicles, consider the following statements: (2018)**

1. PSLVs launch the satellites useful for Earth resources monitoring whereas GSLVs are designed mainly to launch communication satellites.
2. Satellites launched by PSLV appear to remain permanently fixed in the same position in the sky, as viewed from a particular location on Earth.
3. GSLV Mk III is a four-staged launch vehicle with the first and third stages using solid rocket motors, and the second and fourth stages using liquid rocket engines.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3
- (c) 1 and 2
- (d) 3 only

**Ans: (a)**

**Source:** [IH](#)