

GOVERNMENT OF INDIA
DEPARTMENT OF SPACE

RAJYA SABHA

UNSTARRED QUESTION NO. 1567

TO BE ANSWERED ON THURSDAY, FEBRUARY 12, 2026

RISK OF SATELLITE COLLISION

1567. SHRI S.R. SIVALINGAM:

Will the PRIME MINISTER be pleased to state:

- (a) whether Government recognizes that Indian Space Research Organisation (ISRO) satellites are at greater risk of collision in low-earth orbit due to congestion and aging spacecraft;
- (b) the details of measures adopted by Government to strengthen situational awareness for Indian satellites; and
- (c) the details of Government's comprehensive plan to achieve zero debris in space by 2030, including initiatives for debris mitigation, active removal technologies, international cooperation frameworks and the progress made so far in implementing these measures?

ANSWER

**MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC
GRIEVANCES & PENSIONS AND IN THE PRIME MINISTER'S OFFICE**

(DR. JITENDRA SINGH):

- (a) Department of Space/ ISRO recognises that the increasingly congested space environment in the low Earth orbital region poses heightened collision risks for all operating spacecraft.
- (b) The measures undertaken towards strengthening Space Situational Awareness (SSA) for Indian satellites include: selection of operational orbits away from the already

known crowded zones to the extent possible; continual assessment of collision risks and performing Collision Avoidance Manoeuvres (CAMs) as and when required; and setting up indigenous facilities to monitor the space objects under the Network for Space Object Tracking and Analysis (NETRA) project among others.

- (c) The Debris Free Space Mission (DFSM), declared by ISRO in 2024, aims to achieve zero debris by all Indian actors, government as well as private, by 2030. In this regard, ISRO has institutionalized the process to ensure extra fuel margins for both spacecraft and launch vehicles for their post-mission disposal. Studies are being undertaken with rendezvous and proximity operations and robotic arms as precursors to active debris removal.

India is an active participant in international cooperation frameworks such as the Inter-Agency Debris Coordination Committee (IADC), United Nations Working Group on Long Term Sustainability (UN-LTS), etc. and contributes technically in these forums.

Progress has been made in implementing these measures, such as the end-of-life de-orbiting and passivation of SCATSAT to reduce its orbital life and disposal of IRNSS-1D to a super-synchronous graveyard orbit and passivation to avoid interference with operational satellites, among others.
