

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

LOK SABHA

UNSTARRED QUESTION NO. 1446

TO BE ANSWERED ON WEDNESDAY, DECEMBER 04, 2024

SPACE DEBRIS MANAGEMENT

1446. SHRI BAIJAYANT PANDA:

Will the PRIME MINISTER be pleased to state:

- (a) the details of the efforts the Government has made to address challenges related to space debris management, space traffic management and sustainable use of space?**

ANSWER

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

(DR. JITENDRA SINGH):

- (a) Recognising the growing importance of Space Situational Awareness (SSA) for space sustainability, ISRO System for Safe and sustainable Space Operations Management (IS40M) has been established to focus all efforts related to spaceflight safety and debris mitigation and for dealing with the emerging challenges in operating in a congested space environment.**
- Network for Space object TRacking and Analysis (NETRA) has been approved by GOI for SSA capacity building.**

ISRO adheres to the internationally accepted space debris mitigation guidelines recommended by UN -COPOUS and Inter-Agency Space Debris Coordination Committee (IADC) to the maximum possible extent.

For all Indian launch vehicles, Collision Avoidance Analysis (COLA) is performed to select collision threat-free lift-off time within the launch window. Continual assessments of any close approach risk to ISRO's operational satellites are carried out and Collision Avoidance Manoeuvres (CAM) are performed as and when needed. In case the object posing close approach risk is another active satellite, the required coordination is carried out with the owner/operator so that only one of the satellites performs the CAM. Continual efforts to improve the operational methodologies for close approach assessment are pursued to adapt to the challenges posed by the surging space traffic, apart from modelling on-orbit break-up events and prediction of atmospheric re-entries of space objects etc.

ISRO contributes substantially to shaping the pertinent guidelines and recommendations for sustainable use of space as an active member of various international agencies dealing with safety and sustainability of outer space activities, such as IADC, IAA (International Academy of Astronautics, ISO (International Organization for Standardization), IAF (International Astronautical Federation), UN Long Term Sustainability Working Group.

The Indian Space Policy places significant importance in space debris mitigation requirements and SSA capacity building.

The recently unveiled Debris Free Space Mission (DFSM) initiative is also spearheaded by ISRO with an aim to achieve debris-free space missions by all Indian space actors, both governmental and non-governmental, by 2030. The initiative aligns with global efforts for space sustainability, positioning India as a nation prioritizing safety, security, and sustainability in outer space activities.
