

GOVERNMENT OF INDIA
DEPARTMENT OF SPACE

RAJYA SABHA

UNSTARRED QUESTION NO. 363

TO BE ANSWERED ON THURSDAY, JULY 25, 2024

FEASIBILITY STUDY FOR SPACE TOURISM

363. SHRI SANJEEV ARORA:

Will the PRIME MINISTER be pleased to state:

- (a) the status of accomplishment of Gaganyaan mission;
- (b) the results of the feasibility studies for a sub-orbital space tourism mission; and
- (c) the expected timeline for the same?

ANSWER

**MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC
GRIEVANCES & PENSIONS AND IN THE PRIME MINISTER'S OFFICE
(DR. JITENDRA SINGH):**

- (a) The major accomplishment of Gaganyaan Programme is as follows:
 - i. Human Rated Launch Vehicle: Ground testing of propulsion stages, including solid, liquid and cryogenic engine, towards human rating of the launch vehicle has been completed.
 - ii. Crew Module Escape System: Design & realization of five types of Crew Escape System solid motors completed. Static testing of all five types of solid motors completed. First Test Vehicle mission (TV-D1) for the validation of crew escape system and parachute deployment has been successfully accomplished.
 - iii. Orbital Module Systems: Design of Crew Module and Service Module structure have been completed. Various Parachute Systems have been tested through Integrated Main parachute Air drop Test and Rail Track Rocket Sledge Tests. Ground test programme towards human rating of Crew Module Propulsion

System has been completed and Service Module Propulsion System test programme is nearing completion. Characterization of Thermal Protection System has been completed.

- iv. Gaganyatri Training: Two out of three semesters of the training programme completed. Independent Training Simulator and Static Mockup Simulators realized.
 - v. Major Ground Infrastructure: Critical ground facilities such as Orbital Module Preparation Facility, Astronaut Training Facility, and Oxygen Testing Facility have been operationalized.
 - vi. Gaganyaan First Uncrewed mission: Solid and Liquid Propulsion Stages of human rated launch vehicle are ready for flight integration. C32 Cryogenic stage is nearing completion. Crew Module and Service Module structure realization completed. Flight integration activities are in progress.
- (b) ISRO has carried out few technical feasibility studies for a sub-orbital space tourism mission. Results of these studies include basic configuration of space module for safe tourism and a liquid propellant stage booster for launching the module.
- (c) In view of the commercial potential of Space Tourism, Department of Space envisages its commercial exploitation through NewSpace India Limited (NSIL).
