O.I.H.

GOVERNMENT OF INDIA

DEPARTMENT OF SPACE

RAJYA SABHA

UNSTARRED QUESTION NO. 2208

TO BE ANSWERED ON THURSDAY, AUGUST 07, 2025

STATUS OF GAGANYAAN MISSION

2208. SHRI SUBHASH BARALA:

Will the PRIME MINISTER be pleased to state:

(a) the current status of the Gaganyaan mission, its technological progress and the economic benefits arising from it, the details thereof;

(b) the progress of training of the Indian Air Force pilots selected for the mission; and

(c) the expected timeline for the second test vehicle mission and unmanned orbital flights under the Gaganyaan mission?

ANSWER

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

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(a) The current status and key technological progress achieved in the Gaganyaan mission is as for following detail:

- Human Rated Launch Vehicle (HLVM3): Development and ground testing completed.
- Orbital Module: Propulsion systems for Crew Module and Service Module developed and tested. ECLSS engineering model realized.
- Crew Escape System (CES): 5 types of motors developed and static tested.
- Infrastructure established: Orbital Module Preparation Facility, Gaganyaan Control Centre, Gaganyaan Control facility, Crew training facility, Second Launch pad modifications.

- Precursor Missions: A Test Vehicle developed for validating CES and flight tested in TV-D1. Activities progressing for TV-D2 and IADT-01.
- Flight Operations and Communication Network: Ground network configuration finalized. IDRSS-1 feeder stations and terrestrial links established.
- Crew Recovery Operations: Recovery assets finalized. Recovery Plan worked out.
- Service Module Propulsion System (SMPS): Development including qualification test programme completed.
- First Uncrewed Mission (G1): C32-G stage and CES motors realised. HS200 Motors and CES Fore end up to Crew Module Jettisoning Motor stacked. Crew Module and Service module structure realised. Crew Module Phase-1 checks completed.

Economic benefits arising from Gaganyaan mission: The development of indigenous space technology toward Gaganyaan will attract investments, boost domestic manufacturing, and contribute to economic growth. It will also pave the development of new innovations and research in pharmaceutical, biomedical instrumentation, material development, in-orbit manufacturing, space tourism and other spin-offs, which will have long term economic benefits.

(b) The generic training of Indian Air Force Pilot(s) selected for the Gaganyaan mission was completed in Russia. Detailed Gaganyaan mission specific training curriculum and facilities were developed. At present, two out of three semesters of the Gaganyaan specific training of selected Indian Air Force Pilot(s) have been completed.

(c) The targeted dates are as under:

- The second test vehicle mission (TV-D2) - Q3 of 2025.
- The first unmanned orbital flight under the Gaganyaan mission - Q4 of 2025.
- The second and third unmanned orbital flights (G2 and G3) - 2026.

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