

**GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE**

**LOK SABHA**

**UNSTARRED QUESTION NO. 2417**

**TO BE ANSWERED ON WEDNESDAY, MARCH 15, 2023**

**GAGANYAAN MISSION**

**2417. SHRI KESINENI SRINIVAS:**

**Will the PRIME MINISTER be pleased to state:**

- (a) the current project status of the Gaganyaan Mission;**
- (b) whether it is a fact that the Government had set 2022 as the deadline for conceptualizing the Gaganyaan mission, if so, the details thereof;**
- (c) whether the execution of the Gaganyaan mission has since been delayed;**
- (d) if so, the reasons therefor;**
- (e) the remedial steps the Government is planning to take in order to expedite the execution of the project; and**
- (f) the total expenditure incurred by the Government in the Gaganyaan Mission till October 2022 and the details of any overhead expenditures incurred due to the delay?**

**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 project status of the Gaganyaan is as follows:**
- I. All the design activities are completed, proto models testing commenced for all systems. Manufacturing of all the systems have been initiated and in progress.**
  - II. The Human rated Launch vehicle systems (HLVM3) are tested and qualified. All propulsion systems tests for higher margins completed.**
  - III. Test Vehicle TV-D1 mission for demonstration of crew escape system designed, and stage for first flight realised. The Crew Module structure for TV-D1 mission is delivered.**
  - IV. Static tests of all Crew Escape System motors have been completed. Batch testing is in progress.**
  - V. First semester of Astronauts training has been completed. Crew evaluation and assessment activities have also been completed.**

**VI. Orbital module for uncrewed G1 mission realization in progress. For qualification of Parachutes and pyros through Ground and Air drop tests underway.**

**VII. Recovery trials of crew module from sea commenced at Water Survival Test Facility (WSTF), Indian Navy, Kochi.**

**(b), (c) & (d)**

**Yes Sir, the target for launching first crewed mission of Gaganyaan has been in 2022. However, due to lockdowns, disruptions in raw material supply chain from foreign sources and delays in hardware realization from industries, the schedule is modified. Moreover, Gaganyaan Advisory Council has recommended testing of Crew Escape System and deceleration systems through four abort missions using Test Vehicle (TV) and Integrated Air Drop Tests before proceeding with crewed missions. This is in addition to the two uncrewed missions planned earlier.**

**(e) In the post-lockdown phase, the activities with respect to Gaganyaan progressed well at various work centers. Department of Space has taken various steps to accomplish Gaganyaan through establishment of dedicated teams at all ISRO centres for design, quality and Human rating certification, and establishment of fast-track procurement committees.**

**Now resuming in the post lockdown phase, the design of various systems related to Gaganyaan is completed and the program has**

**entered the realization and testing phase. Presently, Gaganyaan is the high priority activity for Department of Space.**

**The first test vehicle mission, TV-D1, is planned in May 2023, followed by the second test vehicle TV-D2 mission and first uncrewed mission of Gaganyaan (LVM3-G1) in the first quarter of 2024.**

**The second series of test vehicle missions (TV-D3& D4) and LVM3-G2 mission with robotic payload is planned next. The Crewed mission is planned by end of 2024 based on the outcome of the successful test vehicle and uncrewed missions.**

- (f) The total expenditure incurred for Gaganyaan program as on 30<sup>th</sup> October 2022 is Rs 3040 Cr. All the budgeted items for Gaganyaan have been already committed for identified activities.**

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