

PARLIAMENT QUESTION: HUMAN SPACEFLIGHT AND INDIGENOUS SPACE TECHNOLOGY

प्रविष्टि तिथि: 30 JUL 2026 5:15PM by PIB Delhi

The Bharatiya Antariksh Station (BAS) is planned as India's first indigenous space station comprising of five modules, targeted to be established by 2035. In October, 2024, Union Cabinet approved development and launch of 1st module of BAS (BAS-01) by 2028 as part of revision in scope of Gaganyaan Programme. Baseline Design Review and System Engineering of BAS-01 completed and 31 Nos of baseline design documents released. Expert committee review completed. Design of subsystems have commenced.

As part of Gaganyaan programme, new developments in the area of Human Rated Launch Vehicle (HLVM3), Orbital Module, Crew Escape System, ground infrastructure establishments, establishment of flight operations and communication network, Crew recovery operations have been carried out. Pre cursor missions TV-D1, IADT-01 and 02 have been accomplished. Activities are in advance stages for 1st Uncrewed mission, G1.

Docking systems have been worked out including electrical and mechanical interfaces. The concept demo model of Refuelling mechanism has been successfully demonstrated.

Other critical technologies for human spaceflight requirement include flight suit, view port and crew seat. For Gaganyaan missions these have been currently sourced from external parties.

Major critical technologies for human space programme have been identified including flight suit, view port, crew seat and docking technology. Govt of India has approved the indigenous development of these critical technologies. Design and development of proto hardware is in progress.

These initiatives will establish the technological foundation for indigenous design and development of the remaining four modules of BAS. It will build self-reliance in critical human spaceflight technologies, thereby fostering innovation and high-technology manufacturing required for human space flight.

This information was given by Union Minister of State for Prime Minister's office and Personnel, Public Grievances and Pensions, Atomic Energy and Space, Dr. Jitendra Singh, in a written reply in the Rajya Sabha today.

NKR/AK/NM

