

Gaganyaan

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Context:

Gaganyaan astronaut designates received 'astronaut wings' from PM Modi

Background:

1. Group Captain Prasanth Balakrishnan Nair, Group Captain Ajit Krishnan, Group Captain Angad Pratap and Wing Commander Shubhanshu Shukla - the four Indian Air Force (IAF) pilots are the 'astronaut designates' who have been undergoing training for India's Gaganyaan mission, planned for 2025.
2. Only three of them will eventually go to space as part of the Gaganyaan mission.

About Gaganyaan:

1. Gaganyaan project envisages demonstration of human spaceflight capability by launching crew of 3 members to an orbit of 400 km (low earth orbit) for a 3 days mission and bring them back safely to earth, by landing in Indian sea waters.
2. The Gaganyaan Mission is India's first human space flight programme
3. India will become only the fourth country to send a human into space after the Soviet Union, the US and China.
4. LVM3 rocket - The well proven and reliable heavy lift launcher of ISRO, is identified as the launch vehicle for Gaganyaan mission. It consists of solid stage, liquid stage and cryogenic stage. All systems in LVM3 launch vehicle are re-configured to meet human rating requirements and christened Human Rated LVM3.
5. HLVM3 consists of Crew Escape System (CES) powered by a set of quick acting, high burn rate solid motors which ensures that Crew Module along with crew is taken to a safe distance in case of any emergency either at launch pad or during ascent phase.
6. Orbital Module (OM) that will be Orbiting Earth comprises of Crew Module (CM) and Service Module (SM).
7. CM is the habitable space with Earth like environment in space for the crew.