

PM Narendra Modi Visit To Vikram Sarabhai Space Centre

Why In News

- Prime Minister Narendra Modi will visit the Vikram Sarabhai Space Centre (VSSC) here on and review the **Gaganyaan activities** and also dedicate three ISRO facilities to the nation.
- Prime Minister will **also inaugurate three facilities which includes** Trisonic Wind Tunnel, here, Semi-cryogenic Integrated Engine and Stage Test Facility at ISRO Propulsion Complex, Mahendragiri and the PSLV Integration Facilities at the Satish Dhawan Space Centre SHAR, Sriharikota.



All You Need To Know

- Prime Minister Narendra Modi will **review the progress on the Gaganyaan** human spaceflight programme and dedicate three facilities of the Indian Space Research Organisation (ISRO) to the nation during a visit to the **Vikram Sarabhai Space Centre (VSSC) in Thiruvananthapuram** on February 27. During the visit, PM Modi will also commend the four test pilots by awarding them with their 'astronaut wings'.



- The selection process took place in 2019 at the **Institute of Aerospace Medicine in Bengaluru**, which is under the Indian Air Force. Following multiple rounds of selection, **Prashant Nair, Angad Pratap, Ajit Krishnan, and Chauhan** were approved by IAM to be part of the Gaganyaan mission.



- Mr. Modi is also likely to announce the names of the astronauts of the Gaganyaan programme, which, reportedly, **includes a Keralite**. Mr. Modi will also bestow the **'mission patches'** on them.
- Gaganyaan, **expected to be launched in 2025**, envisages demonstration of human spaceflight capability by sending astronauts to orbit and returning them safely to earth.
- Mr. Modi, who is scheduled to visit VSSC will dedicate the **Trisonic Wind Tunnel** established at the VSSC, integration facilities for the **Polar Satellite Launch Vehicle (PSLV)** set up at the Satish Dhawan Space Centre, Sriharikota, and the

Semi-cryogenic Integrated Engine and Stage Test Facility (SIET) at the ISRO Propulsion Complex in Mahendragiri in Tamil Nadu. The three facilities have been developed at a cost of ₹1,800 crore.



- The **Trisonic Wind Tunnel** has an overall length of 170 metres. With a test section size of 1.2 metres, it produces a “**controlled uniform airflow**” over scale models of rockets and aircraft to assess their aerodynamic characteristics for optimal design development.
- The **wind tunnel**, which is the first of its kind in the country, has a Mach number range of 0.2 to 4, which means it can generate speeds ranging from subsonic to supersonic up to four times the speed of sound (Mach number 4).



- The **Trisonic Wind Tunnel** will provide self-reliance in the end-to-end design of upcoming launch vehicle projects. The **new PSLV Integration Facilities (PIF)** at Sriharikota will give the ISRO the capability to increase the number of PSLV

missions in a year to 15. At the new facility, the PSLV rocket will be integrated parallelly with the refurbishment of the launch pad, saving time.



- **SIET will give the ISRO the capability** to test the SCE-2000 semi-cryogenic engine which uses refined **kerosene (named ISROSENE)** and liquid oxygen as propellants and the rocket stage. The facility is at the ISRO Propulsion Complex in Mahendragiri.
- ISRO chairman S. Somanath, VSSC director S. Unnikrishnan Nair and directors of various ISRO centre's will be among those present.

