

## ISRO: Second-Generation Navigation Satellites

May 23, 2023

May 29, 2023: Bangalore: **Indian Space Research Organization (ISRO)** has scheduled launch of the GSLV-F12/NVS-01 satellite on Monday, May 29, 2023 at 10:42 hours IST from the second launch pad at SDSC-SHAR, Sriharikota. This **Geosynchronous Satellite Launch Vehicle (GSLV)** mission is designed to deploy the **Navigation Satellite, NVS-01**, weighing about 2232 kg, into a Geosynchronous Orbit. Subsequent orbit raising manoeuvres will be used for taking the satellite to the intended orbit.



*29 May: ISRO to launch NVS-01 navigation satellite*

NVS-01 is the first of the second-generation satellites envisaged for **Navigation with Indian Constellation (NavIC)** services. NVS series of satellites will sustain and augment the NavIC with enhanced features. This series incorporates L1 band signals additionally to widen the services. For the first time, an **indigenous atomic clock** will be flown in NVS-01.

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ISRO had used imported atomic clocks on all the **nine navigation satellites**, it had launched earlier. Each satellite had three atomic clocks. The clocks are used for precise time and location.

Simply put, the NavIC or formerly **Indian Regional Navigation Satellite System (IRNSS)**, is similar to the GPS (Global Positioning System) of the US, Glonass of Russia and Galileo of Europe as well as China's Beidou. **By --Dr K N Mistry**