



ISRO's 100th Launch from SDSC

[Source: TH](#)

The [Indian Space Research Organisation \(ISRO\)](#) achieved its historic **100th launch** from the **Satish Dhawan Space Centre (SDSC)** in Sriharikota, using the [GSLV-F15](#) to deploy the **NVS-02 satellite**.

- NVS-02 is the **2nd satellite** in the **series of 2nd generation satellites** of the [Navigation with Indian Constellation \(NavIC\)](#).
 - The NavIC system is made up of **7 operational satellites** in orbit (**3 in Geostationary Orbit and 4 in Geosynchronous Orbit**).
 - NavIC provides accurate **position, velocity, and timing** to users in the **Indian sub-continent** and regions **up to 1,500 km beyond**.
- The GSLV-F15 is the **17th GSLV flight**, and **11th with an Indigenous Cryogenic stage**.
- The first launch from SDSC took place in **August 1979** carrying the **Rohini Technology Payload** (partially successful).
- Key Launches of ISRO include [Chandrayaan-1](#) (2008), [Mars Orbiter Mission](#) (2013), [PSLV-C37](#) (2017, World record: **104 satellites launched**), [Chandrayaan-2](#) (2019), and [Chandrayaan-3](#) (2023), [Aditya-L1](#) (2023).

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NAVIGATION WITH INDIAN CONSTELLATION (NavIC)

Navigation with Indian Constellation, also known as NavIC, is a stand-alone satellite navigation system, which is similar to GPS.

+ DEVELOPED BY

- Indian Space Research Organisation (ISRO)

+ NUMBER AND POSITIONING OF SATELLITES

- 8 (only 7 active): 3 in geostationary and 4 in geosynchronous orbits

+ PREVIOUSLY KNOWN AS

- Indian Regional Navigation Satellite System (IRNSS)

NavIC is recognised by IMO as a part of World-Wide Radio Navigation System (WWRNS) for operation in the Indian Ocean Region.

+ APPLICATIONS

- Navigation** - Terrestrial, aerial and marine
- Tracking and Mapping** - Vehicle and fleet management
- Location Based** - Precise timing for ATMs and power grids
- Resource Monitoring** - Surveying and geodesy, scientific research
- Safety-of-life **alert dissemination**
- Time dissemination** and synchronization
- Integration with mobile phones**

+ SIGNIFICANCE

- Real time information** for civilian as well as strategic users
- India's reduced dependence** on other countries
- Scientific & technological **advancement**
- Regional integration and India's diplomatic goodwill gesture

+ ISSUES

- Constellation satellites **exceeding their operational lifespan**
- Mobile phones **lacking compatibility** with NavIC
- Limited coverage** of NavIC (extends only 1,500 km beyond India)

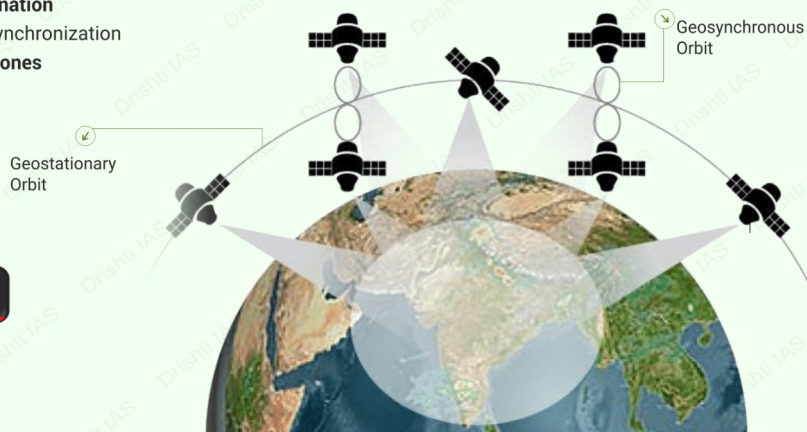
+ OTHER NAVIGATION SYSTEMS

Global Systems

- GPS** (US), **GLONASS** (Russia), **Galileo** (European Union) and **BeiDou** (China)

Regional Systems

- Quasi-Zenith Satellite System (QZSS)** from Japan



Read More: [ISRO's new NavIC Satellite NVS-01](https://www.drishtias.com/printpdf/isros-100th-launch-from-sdsc)

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