

ISRO Strategic Satellite Delays and NavIC Constellation Challenges

Concerns have emerged over launch delays of key strategic satellites and the ageing NavIC satellite constellation.

NavIC is India's independent regional satellite navigation system designed to provide accurate positioning service.

KEY EXAM POINTS

- **Two key strategic satellites** are launch-ready but currently awaiting suitable **launch vehicles**.
- India's regional **navigation system NavIC** faces operational capability concerns due to ageing satellite units.
- Mission timeline delays have raised critical discussions regarding national **strategic space readiness** and launch frequency.

STATICS & SYLLABUS FOCUS

NavIC, officially known as Indian Regional Navigation Satellite System (**IRNSS**), is an independent regional navigation satellite system developed by **ISRO**.

NavIC consists of a constellation of **7 active satellites** covering India and a region extending up to **1,500 km** from its boundaries.

ISRO was established on **August 15, 1969**, and operates under the Department of Space (DoS) headquartered in **Bengaluru**.

ISRO launched the first NVS series satellite (**NVS-01**) in **May 2023** aboard **GSLV-F12** to augment the NavIC constellation with L1 signals.

Satish Dhawan Space Centre (SDSC) SHAR, India's primary spaceport, is located in **Sriharikota**, Andhra Pradesh.

India is constructing its second spaceport at **Kulasekarapattinam** in **Tuticorin** district, Tamil Nadu, primarily for Small Satellite Launch Vehicles (**SSLV**).

REVISION FLASHCARD

NavIC (IRNSS) consists of 7 satellites providing positioning services over India and 1,500 km beyond its borders.

Syllabus Relevance: High exam relevance under Unit 1 (General Science) and Unit 2 (Current Events) for Group 1, 2, 2A, and 4.

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