



Transfer of in-orbit Communication to NewSpace India Ltd (NSIL)

For Prelims: ISRO, NSIL

For Mains: Need of Space Revolution and related steps taken

Why in News?

Recently, the government has **approved the transfer of 10 in-orbit communication satellites from the Government of India to [NewSpace India Ltd \(NSIL\)](#).**

- The **entire GSAT series, except GSAT-7 and 7A, will go to NSIL**, and thereby to companies intending to develop downstream satcom businesses. The new CMS (communication satellite) series is already operated by NSIL.
- Increasing the **authorised share capital of NSIL from Rs 1,000 crore to Rs 7,500 crore** was also approved.

What is the Significance of this Step?

- **Provide Desired Financial Autonomy:**
 - Transfer of these assets to NSIL will **further provide the desired financial autonomy to the company** to realize capital intensive programmes/projects and thereby offering huge employment potential and technology spin-off to other sectors of the economy.
- **Boost Domestic Activity in Space Sector:**
 - The approval is **expected to stimulate domestic economic activity** and help India gain a larger share of the global space market.
- **Facilitate Ease of Doing Business in Space Sector:**
 - NSIL functioning as a single-window operator will **also facilitate the [ease of doing business in the space sector](#)**.
 - NSIL Board will now be **empowered to price the transponders as per the market dynamics** and global trends in the Satellite Communication sector.
 - NSIL is also **authorised to offer and allocate capacity** as per its internal policies and guidelines.
 - Under the [Space Sector reforms](#), NSIL was mandated to undertake comprehensive commercial space activities and serve as a full-fledged satellite operator.

Four Pillars of Space Reforms

- **Allowing the private sector** freedom of innovation.
- **Government playing the enabler's role.**
 - **Formation of Indian Space Association (ISpA):** It aspires to be a collective voice of Indian Space Industry.

- **Preparing youngsters** for the future.
 - Recently, [ATL Space Challenge 2021](#) has been launched. This is to ensure that students of classes 6 to 12 are given an open platform where they can innovate and enable themselves to solve digital age space technology problems.
- **Treating the space sector as a resource** for the progress of the common man.
 - Development projects are being monitored by satellite imaging, space technology is being used in settlement of [Fasal Bima Yojna claims](#) and disaster management planning, and the [NAVIC system](#) is helping fishermen.

What is NewSpace India Ltd (NSIL)?

- **About:**
 - NSIL is a **Central Public Sector Enterprise** of the Government of India.
 - It was established in 2019 under the administrative control of the **Department of Space**.
 - NSIL is the **commercial arm of [Indian Space Research Organisation \(ISRO\)](#)** with the primary **responsibility of enabling Indian industries to take up high technology space related activities**.
 - Headquarters: Bengaluru
- **Mission:**
 - **Owning satellites for Earth Observation and Communication applications** and providing space-based services
 - **Building satellites and launching** them as per demand
 - **Providing Launch Services** for satellite belonging to customer
 - **Building launch vehicles through Indian Industry** and launch as per satellite customer requirement
 - **Space based Services** related to Earth Observation and Communication satellites on commercial basis
 - Satellite building through Indian Industry
 - Technology Transfer to Indian Industry

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. With reference to India's satellite launch vehicles, consider the following statements: (2018)

1. PSLVs launch the satellites useful for Earth resources monitoring whereas GSLVs are designed mainly to launch communication satellites.
2. Satellites launched by PSLV appear to remain permanently fixed in the same position in the sky, as viewed from a particular location on Earth.
3. GSLV Mk III is a four-staged launch vehicle with the first and third stages using solid rocket motors; and the second and fourth stages using liquid rocket engines.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3
- (c) 1 and 2
- (d) 3 only

Ans: (a)

Exp:

- PSLV is the third generation launch vehicle of India. It is the first Indian launch vehicle to be equipped with liquid stages.

- It is used **mainly for delivering various satellites in Low Earth Orbits**, particularly the Indian Remote Sensing series of satellites. It can take up to 1,750 kg of payload to Sun-Synchronous Polar Orbits of 600 km altitude.
- GSLV is designed mainly to deliver Indian National Satellite System, or INSAT, which is a series of multipurpose geo-stationary satellites launched by ISRO to **fulfil the needs of telecommunications, broadcasting, meteorology, and search and rescue operations**. It places satellites to the highly elliptical Geosynchronous Transfer Orbit (GTO). Hence, statement 1 is correct.
- The **satellites in the geosynchronous orbits appear to remain permanently fixed** in the same position in the sky. Hence, statement 2 is not correct.
- GSLV-Mk III is a fourth generation, three stage launch vehicle with four liquid strap-ons. The indigenously developed Cryogenic Upper Stage (CUS), which is flight proven, forms the third stage of GSLV Mk III. It is capable to lift 4-5 tonne satellites into Geosynchronous Transfer Orbit (GTO). **The rocket has three-stages with two solid motor strap-ons (S200), a liquid propellant core stage (L110) and a cryogenic stage (C-25)**. Hence, statement 3 is not correct. Therefore, option (a) is the correct answer.

[Source: IE](#)

PDF Reference URL: <https://www.drishtiias.com/printpdf/transfer-of-in-orbit-communication-to-newspace-india-ltd-nsil>

