



# ISRO to Launch TeLEOS-2 Satellite

## Why in News?

The [Indian Space Research Organisation \(ISRO\)](#) is set to launch Singapore's TeLEOS-2 satellite from the **Satish Dhawan Space Centre in Sriharikota**.

- The launch will be carried out by **the [Polar Satellite Launch Vehicle \(PSLV\)](#) of ISRO**.
- This is a dedicated commercial mission through **[NSIL](#) with TeLEOS-2 as primary satellite and Lumelite-4 as a co-passenger satellite**.

## What is the TeLEOS-2 Satellite?

- **About:**
  - **TeLEOS-2 is a [Earth Observation Satellite](#) weighing 741 kg and has **synthetic aperture radar capable of providing data in 1-meter resolution**.**
  - It is equipped with a **high-resolution camera** that can capture images with a ground resolution of up to one meter.
- **Objectives:**
  - The primary objective of TeLEOS-2 is to provide **high-resolution imagery of the Earth's surface for various applications, including urban planning, disaster management, maritime safety, and environmental monitoring**.
  - The satellite is also expected to support **Singapore's Smart Nation initiative**, which aims to harness technology to improve the quality of life for citizens.

//



**TeLEOS-2**

## What is PSLV?

- PSLV is a highly capable **third generation launch vehicle** developed by ISRO. It is often referred to as the "**Workhorse of ISRO**" due to its consistent performance over the years.
  - The PSLV features four stages:
    - The **first stage utilizes a solid rocket motor augmented by six solid strap-on boosters.**
    - The second stage is powered by an **Earth storable liquid rocket engine called the Vikas engine**, developed by the Liquid Propulsion Systems Centre.
    - The third stage is a **solid rocket motor that provides high thrust for the upper stages** after the launch vehicle clears the Earth's atmosphere.
    - Finally, the uppermost stage of the PSLV is **equipped with two Earth-storable liquid engines.**
  - It is the **first Indian launch vehicle** to be equipped with liquid stages.
  - It successfully launched two spacecraft - [Chandrayaan-1](#) in 2008 and [Mars Orbiter Spacecraft](#) in 2013 - that later travelled to Moon and Mars respectively.

## What are the Previous Space Collaborations Between ISRO and Singapore?

- **TeLEOS-2 will be the second satellite launched by ISRO for Singapore**, following the successful launch of **TeLEOS-1 in 2015.**
  - TeLEOS-1 is a commercial mission of Singapore. It aims to provide convenient access to **high temporal imagery to aid prompt response to time-sensitive events.**
    - It is the first commercial Earth observation satellite from Singapore.
- The collaboration between ISRO and ST Engineering has also led to the development of other space-related projects, such as the design and development of a satellite ground station in Singapore.

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

**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)**

**Source: TH**

PDF Refernece URL: <https://www.drishtiias.com/printpdf/isro-to-launch-teleos-2-satellite>