

## ISRO's PSLV-C51 Launch - NSIL

### Why in news?

- ISRO successfully launched Brazil's optical earth observation satellite, Amazonia-1, and 18 co-passenger satellites from India [5] and the U.S.A. [13].
- The satellites were carried on board the PSLV-C51 from the Satish Dhawan Space Centre (SHAR) at Sriharikota.

### What all were part of it?

- Of the 13 satellites from the U.S., one was a technology demonstration satellite.
- The remaining for 2-way communications and data relay.
- Five satellites belong to India including -
  - i. the Satish Dhawan SAT (SDSAT) built by Space Kidz India, a nano-satellite intended to study the radiation levels, space weather and demonstrate long range communication technologies
  - ii. the UNITYsat, a combination of three satellites intended for providing radio relay services
- The other satellite belongs to DRDO.
- The main payload in the mission was Brazil's Amazonia-1 earth observation satellite.
- The sun-synchronous Amazonia-1 is the first satellite to be fully designed, integrated, tested, and operated by Brazil's National Institute for Space Research.
- It can generate images of any part of the world every 5 days.
- But it will be used mainly to provide remote sensing data to monitor deforestation in the Amazon.

### Why is it significant?

- With the launch of Brazil's Amazonia-1 satellite, a new chapter has begun in India's space history.
- The satellite was the first dedicated commercial mission of New Space India Limited (NSIL).
  - NSIL is a two-year-old commercial arm of ISRO.
- This is not the first time that NSIL has organised a launch of foreign

satellites aboard an ISRO launch vehicle.

- The organisation has had launches in November 2020 as well as in December 2019.
- However, the primary satellites aboard both these missions were Indian satellites — the RISAT-2BRI and the EOS-01.
- There were smaller satellites from several other countries, as well as India.
- The Amazonia mission also saw 18 other satellites being launched and was the first fully commercial mission.
- The mission was undertaken under a commercial arrangement with Spaceflight Inc., USA.
- The launch with PSLV-C51 is the 53rd flight of India's workhorse launch vehicle (PSLV).

### **What is the future potential?**

- India has so far launched 342 foreign satellites from 34 countries using its PSLV platform.
- Many of them have involved ISRO's first commercial entity, the Antrix Corporation.
- There is still confusion on how exactly the responsibilities of NSIL differ from those of Antrix.
- But there is a potential explosion of market opportunities from space applications with -
  - i. the formation of the Indian National Space Promotion and Authorization Center (IN-SPACe), a regulatory agency
  - ii. plans of an independent tribunal to adjudicate disputes among private space entities
- The private sector plays a major role in developing launch and satellite infrastructure for ISRO.
- But now, there are several companies that offer varied other services.

### **What role is NSIL expected to play?**

- NSIL has a broad ambit and will be involved in collaborations spanning from launches to new space-related industries.
- NSIL is also expected to be more than just a marketer of ISRO's technologies.
- It is expected to find newer business opportunities and expand the sector itself.
- NSIL must endeavour to not be another Antrix but be continuously in start-up mode.
- It must conceive of ways to aid space start-ups reach out to rural India.
- It should thus facilitate more recruits from India's youth to facilitate careers

in space applications and sciences.

### **What are the challenges?**

- Many of the private companies want to launch their own satellites, of varying dimensions.
- In this regard, the experience with ISRO has not been smooth always.
- The most conspicuous has been the controversy involving Devas Multimedia.
- The Government of India owes nearly \$1.2 billion to Devas Multimedia.
  - This was as per an order of a tribunal of the International Chamber of Commerce.
  - The order was also upheld by a United States federal court.
- NSIL is thus also a move to insulate the prospects of the space industry in India from repercussions of the Devas-Antrix imbroglio.

**Source: The Hindu, The Indian Express**

