

PSLV C-44 (Microsat-R and Kalamsat)

February 1, 2019

Manifest Pedagogy

The year 2019 is scheduled for 32 satellites. Hence, the aspirants have to keep a segregated list of satellites with applications. In the era of space weaponization, one has to keep track of the satellites of other nations too.

In news

ISRO successfully launches Microsat-R and Kalamsat

Placing it in the syllabus

Achievements of Indians in science & technology; indigenization of technology and developing new technology. Awareness in the field of space

Static dimensions

1. Earth observation satellites
2. Defence related satellites

Current dimensions

1. Recent launches of ISRO

Content

Key highlights of the launch:

- PSLV- C44 placed Microsat-R and Kalamsat into Sun Synchronous Polar orbit.
- PSLV-C44 was launched from the First Launch pad at

Satish Dhawan space centre(SDSC) SHAR, Sriharikota.

- Demonstration of spent stage PS4 (fourth stage) as an experimental orbital platform for carrying out technology demonstration.
- According to Isro officials, PS4 will stay 'alive' for the next six months before it drifts away and disintegrates upon reaching the earth's atmosphere.
- In the meantime, the cubesat made of space grade aluminium will be tested for its communication module, onboard computer, solar panels and electronics designed and developed by Indian students. The data from the tiny satellite will be collected by ground stations.

Kalamsat

- Kalamsat is a student satellite (10cm cubesat) developed by students and Chennai-based Space Kidz India. It will be the first to use the fourth stage of PSLV as orbital platform.
- Kalamsat is said to be the lightest satellite of India.

Microsat-R

- Microsat-R is an imaging satellite, The 740kg imaging satellite was programmed to cross the equator every day around noon local time when the sun illuminates the Indian region.
- Microsat-R, an imaging satellite designed for military applications by DRDO laboratories, will circle the earth at an altitude of 227 km sweeping pole to pole, as the planet turns on its axis and around the sun.
- It was PSLV's 46th flight and the first flight with a new variant of PSLV called PSLV-DL.
- The PSLV is a four-stage engine expendable rocket with alternating solid and liquid fuel.
- In its normal configuration, the rocket would have six strap-on motors hugging its first stage.