

## **ISRO's Goal Of Being A Leading Provider Of Commercial Rocket**

### *ISRO's Largest LVM3 Rocket Launches The Second Fleet Of 36 Satellites*

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*In its second commercial launch and in achieving its goal of being a leading provider of commercial rocket launches, the largest LVM3 rocket in the country, carrying 36 satellites, was successfully launched by the Indian Space Research Organization (ISRO) on Sunday from the Satish Dhawan Space Center in Sriharikota, Andhra Pradesh. In addition, the OneWeb Group rocket LVM3, the largest rocket ever launched by ISRO, was also launched. This was Network Access Associates Limited's second mission to launch 72 satellites into low-Earth orbit, as per a contract with NewSpace India Limited (NSIL). On October 23, 2022, the LVM3-M2/OneWeb India-1 mission launched the first group of 36 satellites. India therefore made its foray into the commercial heavy lift-off industry.*

## **What is OneWeb?**

*OneWeb is a global supplier of communication services using the next-generation space-based internet, based in London. Similar to Elon Musk's Starlink, OneWeb offers its services to telecom corporations rather than to individuals. Using a satellite constellation, Starlink and OneWeb both offer services. The British government, Bharti Enterprises in India, and Eutelsat in Paris all support the company. In Alaska, Canada, Greenland, the UK, and Northern Europe, it has already begun offering its internet from space services. It intends to begin offering its services in India later this year once it has received approval from various regulatory agencies.*

## **What is OneWeb's Mission?**

*With 18 launches, including three this year, OneWeb has a network of 618 satellites. Calls for 588 satellites, and additional satellites, in order to provide global coverage, the OneWeb constellation design are planned for resilience and redundancy. As a result of this successful launch, the constellation is now ready to provide services to all corners of the world. OneWeb will be prepared to launch global coverage by the end of the year, extending its connectivity solutions that are now operational in locations north of 50 degrees latitude as it brings new areas online through partnerships with top providers. OneWeb's second satellite deployment from India is being made with this mission, demonstrating both the company's solid collaboration with NSIL and ISRO and its dedication to supplying connectivity throughout all of India. Once enabled, OneWeb's coverage solutions will deliver secure connectivity to businesses, cities, villages, municipalities, and schools, even the most remote regions of the country.*

## **What is LVM3?**

*The Launch Vehicle Mark-3 (LVM3) is a three-stage vehicle that consists of two S200 solid motors for the first stage, twin L110 liquid engines for the second stage, and a C25 cryogenic upper stage for the third stage. The launch vehicle's core stage is propelled by two Vikas engines, and requires 115 tonnes of liquid propellant. It also includes two strap-on boosters, which are among the biggest solid boosters in the world and require 204 tonnes of solid propellant. The Geosynchronous Launch Vehicle Mark-3 (GSLV-Mk3), the nation's heaviest launch vehicle, was converted into the LVM-3 for use in launching OneWeb's LEO satellites to a 1,200 km orbit. With a distance of about 36,000 km from the equator, the geosynchronous orbit is much farther away. After five consecutively successful missions, including the Chandrayaan-2 mission, this was LVM3's sixth flight.*

## **ISRO LVM3 Rocket's Launch : A Key Step for India**

*This launch is a key step for India towards utilising the impressive LEO connection capabilities and expanding the use of space-based internet. India was able to embrace the chance provided by OneWeb by concentrating on the commercial space business. The OneWeb satellites were initially scheduled to launch from Russia. Despite the fact that India was able to fill the gap left by Russia as a result of the conflict [in Ukraine], ISRO must now carve out its own niche in the market. Despite being one of the leading spacefaring nations, India only made up around 2% of the market for goods and services. This is projected to rise as more businesses establish their own small satellite launch capabilities when the space sector opens to private participants in 2020.*