



SKY NO LONGER A LIMIT: Vikram-S lifts off from a launch pad at the Satish Dhawan Space Centre in Sriharikota on Friday

PHOTO: PTI

India successfully launches its first pvt sector rocket

PM calls it 'a historic moment'

SHINE JACOB

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India successfully launched its first privately developed rocket, the Vikram-S, on Friday, marking “a new era” for the country’s commercial space industry. The 545-kilogram rocket, developed by space start-up Skyroot Aerospace, took off from the Indian Space Research Organisation’s (ISRO’s) launch site in Sriharikota, near Chennai, at around 11.30 am and hit a peak altitude of 89.5 kilometres.

Prime Minister Narendra Modi lauded the successful foray of a private player into the country’s space sector. “A historic moment for India...It is an important milestone in the journey of India’s private space industry,” he tweeted.

India opened the space sector for private companies in 2020, allowing them to build rockets and satellites as part of the Prarambh mission.

The Vikram-S rocket aimed at validating 80 per cent of technologies that will be used in the Vikram-1 orbital vehicle, planned for launch next year. The rocket carried three payloads built by Andhra Pradesh-based N Space Tech India, Chennai-based start-up Space Kids, and Armenian BazoomQ Space Research Lab.

ALL ABOUT VIKRAM-S

- Mass: **546 kg**
- Length: **6 m**
- Diameter: **0.37 m**
- Payload capacity: **83 kg** up to 100-km altitude
- Equipped with **3D-printed engines** for spin stability during flight
- **One of the cheapest** rockets built in its category

Rocket...

The rocket is a single-stage solid fuelled, sub-orbital rocket that took about two years to develop. It has been built using advanced technologies, including carbon composite structures and 3D-printed components. Within 80 seconds of launch, it was announced that the rocket had achieved hypersonic velocity, and after 155 seconds, it met the peak altitude.

The launch was called a success when the rocket crossed an altitude of 50 km. "I am happy to announce the successful completion of the Prarambh mission. The rocket achieved an altitude of 89.5 km. All systems worked according to the plan. Today is a milestone for the country. It became possible because of the space sector reforms announced in June 2020," said businessman Pawan Goenka, who heads the Indian National Space Promotion and Authorization Center (IN-SPACe), which coordinates between private space firms and ISRO.

"We scripted history today. The Prarambh mission is the beginning of a new era in Indian space research. This is a small step by a start-up and a giant leap for the Indian space industry," said Pawan Chandana, co-founder of Skyroot. "Next, our focus is developing our flagship Vikram I orbital vehicle that we would launch next year."

Jitendra Singh, minister of state for science and technology, who also attended the event, said: "It is a major step forward by India to develop its space ecosystem and emerge as the leader in new space frontiers. This is indeed a turning point in India's start-up moment." Skyroot, one of the most funded start-ups in the space sector in India, having raised about \$68 million, said it was targeting both commercial and government customers, with a focus on global

clients. According to data by Dewesoft, there are around 4,550 man-made satellites in Earth's orbit. At least 50,000 satellites are expected to be launched in the next 10 years, the majority of which will be for the lower orbit, indicating the potential of Skyroot's launch. Chennai-based Agnikul Cosmos plans a full-scale commercial launch of its rocket Agnibaan by April 2023.

Twitter...

Musk brought back leaders who had departed, either as part of his own layoffs or through resignation, to convince others to stay, one of the people said. One returning leader is Ella Irwin, who will manage employees in Trust and Safety, according to a person familiar with the matter, who declined to be identified discussing non-public changes.

Musk later sent a follow-up email on remote work, according to a screenshot viewed by Bloomberg. "Any manager who falsely claims that someone reporting to them is doing excellent work or that a given role is essential, whether remote or not, will be exited from the company."

RBI report..

The report observed that there was a change in the thinking of global central banks as some of them had slowed rate increases, and indicated that the end of rate hikes was in sight.

"...data arrivals of the most recent vintage on the far side of the Atlantic and in India suggest a grudging let-up in inflationary pressures. Consumer price index (CPI) inflation has somewhat eased across BRICS economies and in several other emerging market economies (EMEs) as well, benefiting from lower commodity prices," it said. Touching upon the recent easing of pressure on the domestic currency, the State of the Economy article said a "relief rally" swept across the