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Defence News

India to double its arsenal of S-400 air defence systems

Source: The Tribune, Dt. 06 Mar 2026

India will double its arsenal of the Russian-origin air defence system — S-400. The Defence Acquisition Council, the apex decision-making body at the Ministry of Defence, is set to approve a procurement of five more such systems which performed creditably during Operation Sindoor against Pakistan in May last year.

The Defence Procurement Board (DPB), chaired by the Defence Secretary, okayed the proposal to source five more S400 systems at an expected cost of \$6.1 billion (approx Rs 63,000 crore).

The additional five systems would double the numbers as India ordered five S-400 systems in 2018 for \$5.4 billion. Three of these have been delivered and the remaining two are expected to be delivered this year. The delays were due to the ongoing Russia-Ukraine war. The DAC is now going to take up the issue and is set to give an acceptance of necessity, the first formal step in the procurement process.

The addition of his expansion is part of a broader strategy announced by Prime Minister Narendra Modi on Independence Day-2025 to create a nearly seamless kinetic and electronic shield across India's most vulnerable borders.

The S-400 system — radars, sensors and missiles — was credited with intercepting Pakistani drones and cruise missiles. Last week, the Indian Air Force put out a video showing the S-400 firing away and a missile showed what the IAF called the "longest-ever air kill" in military history, striking a high-value aircraft at a range exceeding 300 km.

Official Sources had indicated that a mere presence of the S-400 forced Pakistani fighters and AWACS (Airborne Warning and Control System) platforms to operate far back from the border, severely limiting their ability to coordinate strikes.

<https://www.tribuneindia.com/news/india/india-to-double-its-arsenal-of-s-400-air-defence-systems/>

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Raksha Mantri exhorts GRSE to build niche platforms in today's evolving tech-driven era to realise Govt's Viksit Bharat goal

Source: Press Information Bureau, Dt. 05 Mar 2026

Raksha Mantri Shri Rajnath Singh has called upon Garden Reach Shipbuilders & Engineers (GRSE) Limited to continue coming forth with state-of-the-art platforms in sync with the technology-driven era to establish itself as a shining example of shipbuilding excellence in India & across the world, while playing a pivotal role in achieving Prime Minister Shri Narendra Modi-led Government's goal of Viksit Bharat@2047. He was addressing the GRSE personnel in Kolkata, West Bengal on March 05, 2026.

Description: A person standing at a podium with a microphone
Description automatically generated

Commending GRSE for its contribution to Nation-Building and Blue Economy, Raksha Mantri described the Indian shipyard as a vibrant chapter in India's glorious industrial and defence history as it has equipped the Indian Navy and the Indian Coast Guard, for the past nearly a century and a half, with potent warships & frigates to secure the maritime interests of the nation. "When a modern warship built by you sails through the waves of the ocean, it is not just a structure of steel and machinery, it embodies the hard work of thousands of workers, the innovation of engineers, the precision of technicians, and the dedication of the shipyard towards the nation," he said, terming every person working in GRSE as not just an employee, but an important part of a larger process of nation-building.

Shri Rajnath Singh emphasised that through hard work, skill, and commitment, GRSE has achieved what many once considered impossible. He urged the personnel to continue working with the same spirit and play their part in transforming India into a maritime power & a developed nation in the times to come. "New challenges will arise, new technologies will emerge, and competition will increase. But with the same hard work, dedication, and commitment, GRSE will become a glowing symbol of shipbuilding excellence for India and the world," he said.

As part of the event, a colourful culture performance by the personnel of GRSE and their families was also presented to Raksha Mantri, who termed it as "excellent" and a reflection of India's diversity, unity of India, and rich cultural heritage. CMD, GRSE Commodore PR Hari (Retd) and other senior officials of the Ministry of Defence as well as the shipyard were present on the occasion.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2235764®=3&lang=1>

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India's underwater strike capability faces gap: Indigenous nuclear-attack submarine likely only by 2036

Source: The Economic Times, Dt. 06 Mar 2026

The deadly torpedo strike that sank the Iranian warship Dena off the Sri Lankan coast is a stark reminder that stealthy, nuclear-powered attack submarines remain the unrivalled predators of the seas.

For India, however, acquiring an indigenous capability of this class remains a goal still a decade away, with the most positive projections indicating that the first such submarine will be ready only by 2036.

While India has a fleet of conventional submarines - the Russian origin Kilo class, German Origin HDW class and French origin Scorpene class - nuclear-attack submarines (also called SSNs) are unrivalled when it comes to projecting naval power.

These submarines can stay underwater for months on their own power and carry out stealthy strikes before disappearing from the battle zone. Conventional submarines, on the other hand, can stay underwater only for a few hours or days, making them vulnerable to enemy retaliation.

India has embarked on a project to manufacture its own class of SSNs, with the project approved from the highest authorities. Given its complexity - India has made nuclear-armed submarines but attack subs require a different level of stealth and power - the development phase is likely to take

at least four years, followed by construction and testing, with the earliest estimate of induction by 2036.

Keeping this gap in capability in mind, India had signed a lease agreement under Project Chakra for a refurbished SSN with Russia, to both carry out training missions and deterrence patrols. The Russian plan, however, has been thrown awry, with the submarine missing its planned delivery date by 2025.

Multiple factors, including the ongoing conflict with Ukraine, has significantly delayed the delivery of the submarine, which is now projected to take place by 2028. India has repeatedly raised the issue with Russia, including during recent meetings involving senior naval personnel.

India already has nuclear-powered and nuclear-armed submarines (SSBNs) under the Arihant class. The new nuclear-attack submarines will be much stealthier and will be armed with conventional weapons. The cabinet committee on security cleared the ₹35,000-crore acquisition in October, with a significant part of the work likely to be done by the private industry.

https://m.economictimes.com/news/defence/indias-underwater-strike-capability-faces-gap-indigenous-nuclear-attack-submarine-likely-only-by-2036/amp_articleshow/129108142.cms

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Science & Technology News

Readying India's first private rocket, with eye on building 'cabs' for space

Source: The Times of India, Dt. 06 Mar 2026

Hyderabad-based Skyroot Aerospace is gearing up to launch Vikram-1, India's first private orbital rocket. The startup is hoping to become a key player in the niche launch segment. But the ultimate aim is to enable space travel for all.

As he's talking up future plans for one of India's pioneering space startups, Pawan Kumar Chandana, the co-founder of Skyroot Aerospace, employs an analogy that's unexpectedly, and literally, grounded. "Think of SpaceX as a transcontinental train or an A380. We're aiming to become the cab or business jet that drops you at a specific slot in a unique orbit in space with our smaller rockets," he says.

It's a reference intended to pinpoint where the company sees itself in the vastness, and vast potential, of space operations. The baby steps have been taken with the sub-orbital rocket, Vikram-S, which Skyroot launched successfully in Nov 2022 on its very first attempt, a feat that even Elon Musk's SpaceX could not achieve.

That distinction burnishes credentials for a company looking for a foothold in the space game even as Chandana's clear that it's not aiming at competition with the space giants. What it's aiming for is a slice of the market that most spacetech giants ignore or don't cater to — the dedicated launch market or the bespoke, door-to-door missions. The analogy of the train is deployed once again. "The market for train is different and that for cab is different.

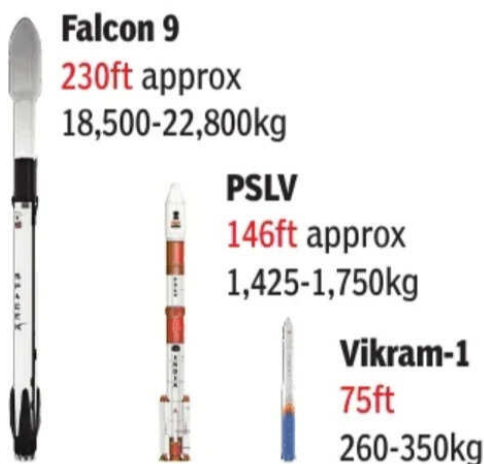
SpaceX and all other companies go to some specific orbits, collate all the customers and launch them. It's a very large market. But we want to address a different niche in the market where people have unique requirements," he says.

The vehicle for those ambitions is already at the launchpad, at least the major bits of it with the rest to follow not much later. The starting point for India's first private orbital rocket launch is a sprawling, high-ceilinged assembly hall just a stone's throw away from the busy international airport at Shamshabad. Known as Max-Q, it's Skyroot Aerospace's headquarters and the place where the seven-storeyed (75-foot) Vikram-1, named after Vikram Sarabhai, the father of India's space programme, is coming together. The rocket has a payload carrying capacity of around 300kg. but in the first orbital mission the payload may be just half that.

The blast-off is expected to happen soon, but Chandana is tightlipped. All he will say is that three stages (Kalam-1200, Kalam-250 and Kalam-125), filled with solid propellant, are already at the launch site at Sriharikota. The rest of the sections — which have a lot of electronics and software — are going through tests in Hyderabad as they gear up to be shipped via specially fitted trucks to the launch site.

"The topmost stage, which is the orbit adjustment module (OAM) equipped with the 3Dprinted liquid engine Raman-2, and the other interstages housing all the avionics are undergoing final integration checks. Hopefully, within weeks, we can move them to the launch site," Chandana said. The slot for launch, he adds, will be announced after it is formally assigned.

HOW THEY COMPARE



Affordability, accessibility

Being a space startup is different from being a national space programme — budgets, resources, and timelines are tighter, margins of error smaller. The company has raised close to \$100 million in funding so far, with some reports indicating that it could emerge as India's first spacetech unicorn (valuation of over \$1 billion) whenever it heads into its next round of funding. But the output is not about inflows.

"To start with we chose to build a smaller rocket that has a very niche market rather than a bigger rocket that caters to the mass market but requires large capital. We will eventually build big rockets but we are taking our initial steps with a niche, growing market as there are very few companies in the world who are doing this," he says. Even though the tone is measured, the scale of Skyroot's ambition is nothing short of universal. 'Opening Space for All', Chandana points out, is the company's motto.

While a lot hinges on the success of Vikram-1, Skyroot has already laid the groundwork for its mission by prioritising affordability and accessibility. Founded in 2018 by Chandana, now 35, and Naga Bharath Daka, 36, both former ISRO engineers, the company has been steadily working towards developing and launching on-demand rockets for small satellites.

VIKRAM-1 AT A GLANCE

- Vikram-1 is set for its first launch this year from Andhra's Sriharikota
- The rocket has an all-carbon composite structure, uses solid fuel boosters & 3D-printed liquid engine
- It can carry satellites of around 300kg to space, though the first mission may have a payload half that weight

With the IIT-Madras incubated Agnikul Cosmos also gearing up to launch its first orbital rocket, christened Agnibaan — it successfully launched its sub-orbital tech demonstrator, Agnibaan SOrTeD, in May 2024 — India's private space players are looking set to make waves.

Skyroot uses advanced carbon fibre structures and 3D-printed engines (liquid stage) to propel their Vikram series of launch vehicles. And it has also achieved another critical milestone — setting up their Infinity Campus, also near the airport, last year, which will allow them to get one Vikram-class rocket out of the door every month.

“Hopefully, we want to reach that cadence next year,” says Chandana. While Vikram-1 will take to the skies from Isro's Satish Dhawan centre at Sriharikota, Skyroot is looking to conduct subsequent launches from Kulasekarapattinam, where Isro's private rocket launch pad is expected to be ready by March-end. Eventually, the plan is to have Skyroot's own launch pad (either at Sriharikota or Kulasekarapattinam) as business grows, indicates Pawan.

The business side is shaping up through MoUs with players such as French newspace operator Promethee to launch its satellite constellation ('newspace' is a reference to the private enterprise-led space sector), and German satellite aggregator Exolaunch for deploying their satellites on Vikram-1. Skyroot has also inked MoUs with Indian spacetech startups like Dhruva Space and Bellatrix Aerospace.

But timelines can be tricky when it comes to space. The company had originally aimed for a 2024 launch timeframe and, more recently, a Q1 2026 timeframe, but section-level testing and the time required to interconnect systems is taking longer than expected. The ultimate goal, however, remains the same: to make human space travel as affordable as air travel. That mission, Chandana says, is very much on track. “In future, we will build reusable rockets that will be much bigger. That is our aspiration before the end of the decade. It's already on the drawing board.”

<https://timesofindia.indiatimes.com/business/india-business/readying-indias-first-private-rocket-with-eye-on-building-cabs-for-space/articleshow/129126711.cms>

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The Tribune
The Statesman
पंजाब केसरी जनसत्ता
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नवभारत टाइम्स
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