



DRDO & Research & Development:

DRDO & Indigenous Defence Projects

Akash Missile System's Global Appeal: The DRDO-developed Akash missile system has gained significant international attention after its successful operational deployment. According to reports, this "trial by fire" has led to increased inquiries from countries like the Philippines and Brazil, positioning India as a potential exporter of advanced air defense technology. A more advanced variant, the Akash-1S, which uses an indigenous radio frequency seeker, has already been exported to Armenia, and several Middle Eastern countries have shown interest. The next-generation Akash-NG, with a range of 70-80 km, is set to begin user trials and is also attracting international interest.

Delay in Submarine Stealth Upgrade: A significant setback has been reported in the program to retrofit India's Scorpene-class submarines with an indigenously developed Air Independent Propulsion (AIP) system. The DRDO-developed fuel cell-based AIP system is still not operationally ready, causing delays and forcing the first submarine, INS Kalvari, to undergo its maintenance refit without the upgrade. This is a critical issue as the AIP system is crucial for enhancing a submarine's underwater endurance and stealth capabilities.

BrahMos Engine Manufacturing: India and Russia have begun discussions to manufacture ramjet engines for the BrahMos and BrahMos-NG supersonic cruise missiles at a new facility in

Uttar Pradesh. This is part of a larger push for self-reliance and aims to reduce India's dependence on imported components. The new facility, located in Lucknow, is expected to play a key role in boosting indigenous missile production.

"Pralay" Missile System Trials: The DRDO recently conducted successful range validation tests of the 'Pralay' missile system from Dr. APJ Abdul Kalam Island off the Odisha coast. The tests were part of User Evaluation Trials, and the missile successfully validated both its minimum and maximum range capabilities, precisely hitting designated targets.

Indigenous Light Tank: Tata Advanced Systems Limited (TASL) is making significant progress in the development of a light tank based on the DRDO's "Zorawar" platform. A prototype is expected by the end of the year, marking a major step in bolstering India's armored vehicle capabilities.

Other R&D and Innovations

Indian Army's 'Surya Dronathon 2025': The Indian Army's Surya Command is hosting a drone competition in Spiti Valley to promote indigenous drone technology and find new solutions for operational requirements.

Defence Order for Axiscades Technologies: A defence stock, Axiscades Technologies, saw a jump after its subsidiary secured a ₹224 crore contract from the Indian Army to supply Next-Gen 50-Ton Tank Transporter Trailers under the "Atmanirbhar Bharat" initiative.





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1. The DRDO-developed Akash-1S missile system has been exported to which country?

- a) The Philippines
- b) Brazil
- c) Armenia
- d) The United States

Answer: c) Armenia

The news states, "A more advanced variant, the Akash-1S, which uses an indigenous radio frequency seeker, has already been exported to Armenia..."

2. Which Indian submarine is undergoing a maintenance refit without the DRDO-developed AIP system due to a delay in the program?

- a) INS Arihant
- b) INS Kalvari
- c) INS Chakra
- d) INS Vikrant

Answer: b) INS Kalvari

The news reports "...forcing the first submarine, INS Kalvari, to undergo its maintenance refit without the upgrade."

3. In which city is the new facility for manufacturing ramjet engines for BrahMos missiles being established?

- a) Bengaluru
- b) Lucknow
- c) Odisha
- d) Pune

Answer: b) Lucknow

The news mentions, "The new facility, located in Lucknow, is expected to play a key role in boosting indigenous missile production."





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4. What is the name of the DRDO platform on which Tata Advanced Systems Limited (TASL) is developing an indigenous light tank?

- a) 'Zorawar'
- b) 'Arjun'
- c) 'Prithvi'
- d) 'Agni'

Answer: a) 'Zorawar'

The news states, "...development of a light tank based on the DRDO's 'Zorawar' platform."

5. What is the extended range of the next-generation Akash-NG missile system?

- a) 20-30 km
- b) 40-50 km
- c) 70-80 km
- d) 100-110 km

Answer: c) 70-80 km

The news reports, "The next-generation Akash-NG, with a range of 70-80 km, is set to begin user trials..."

6. The 'Pralay' missile system trials were conducted from which location?

- a) Sriharikota
- b) Pokhran
- c) Thumba
- d) Dr. APJ Abdul Kalam Island off the Odisha coast

Answer: d) Dr. APJ Abdul Kalam Island off the Odisha coast

The news mentions, "The DRDO recently conducted successful range validation tests of the 'Pralay' missile system from Dr. APJ Abdul Kalam Island off the Odisha coast."

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