

SUGOSHA DEFENCE

DAILY NEWS & ANALYSIS

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National

Keel Laying of FPV-4 & Plate Cutting Ceremony for FPV-7 for Indian Coast Guard

Keel laying ceremony for Fast Patrol Vessel-4 (FPV) (Yard 16504) along with plate cutting ceremony for FPV-7 (Yard 16507) of 14 FPV project (Yard 16501-14) for the Indian Coast Guard was held at Mazagon Dock Shipbuilders Limited (MDL), Mumbai on 06 Apr 26.

These FPVs are being equipped with state-of-art machinery including AI based predictive maintenance system and multipurpose drones. The indigenous content of these ships is augmented with gear box by M/s Triveni, Mysore and Water Jets by M/s MJP India. The water jet propelled FPVs with approx. 340 T displacement are designed for coastal security, and law enforcement duties.

TridenTech Engineering Secures Breakthrough With High-Performance Wankel Engine Trials

TridenTech Engineering has successfully conducted a comprehensive series of test runs for its new 30 HP Wankel engine at the National Aerospace Laboratories (NAL). The engine is a license-built unit that incorporates several innovative home-grown features aimed at pushing the boundaries of traditional rotary designs. These enhancements focus on three critical pillars: extending flight endurance, ensuring mission-critical reliability, and achieving extreme performance under varied atmospheric conditions.

Engineers at TridenTech have focused heavily on thermal management and material durability to ensure the unit can operate for longer durations without degradation. By refining the internal cooling and sealing mechanisms, the team has managed to significantly increase the time between overhauls, a vital factor for sustained military operations. The reliability of the 30 HP unit was a primary focus during the NAL trials, where it was subjected to high-stress scenarios. Performance-wise, the engine offers a high power-to-weight ratio, which is the hallmark of

the Wankel design. TridenTech's modifications have further optimised this, allowing for higher bursts of speed and better climb rates, making it an ideal choice for a wide spectrum of tactical roles.

This propulsion system is positioned as a versatile solution for all categories of Unmanned Aerial Vehicle (UAV) applications within the military sector. From long-range surveillance drones to high-speed target systems, the engine's adaptability ensures it meets the specific needs of various armed forces requirements.

India's 'Suryastra' guided rocket system clears pinpoint accuracy trials

The Suryastra multi-calibre rocket launcher system has achieved a strategic breakthrough by successfully completing pre-contract trials with an exceptional precision of under 5 meters CEP. Developed by Pune-based NIBE Limited in collaboration with Israel's Elbit Systems, the platform utilizes the modular PULS architecture. It is uniquely versatile, capable of firing 122mm, 306mm, and 370mm rockets, as well as SkyStriker loitering munitions, at ranges up to 300 km. This ₹293 crore deal provides the Indian Army with an urgent tactical counterweight to Pakistan's Fatah-II rockets, bridging the gap until the longer-range Pinaka-ER enters full service. By localizing this high-precision standoff capability, India is significantly shoring up its "Integrated Rocket Force," ensuring rapid and lethal response capabilities in contested border theaters under the 'Make in India' framework.



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Covering a comprehensive spectrum of operational needs, the document outlines the Indian Army's roadmap for Unmanned Aerial Systems and Loitering Munitions.

By clearly laying down technological and operational priorities, the document seeks to serve as a critical bridge between operational requirements and technological development, ensuring that India's drone ecosystem evolves in a structured, demand driven manner. The initiative is also expected to catalyse greater participation from startups, MSMEs and academia, while encouraging long-term investments in this critical and emerging technology.

The event brought together key stakeholders from the armed forces, defence industry, start-ups, academia and R&D organisations, reinforcing a whole-of-nation approach towards building a resilient and self-reliant drone ecosystem.

HAL CATS Warrior to Face Competition from Private Sector Paninian Swayatt-M1 in India's Loyal Wingman Race

The race to develop India's next-generation unmanned combat aircraft is heating up, with two distinct Collaborative Combat Aircraft (CCA) initiatives emerging. Hindustan Aeronautics Limited is progressing with its CATS Warrior platform. Simultaneously, Hyderabad-based private deep-tech firm Paninian India is constructing the Swayatt-M1, its own autonomous aerial system. While both drones are envisioned to act as "loyal wingmen" supporting manned fighter jets in combat, they employ vastly different design concepts and strategic functions. HAL's drone belongs to the comprehensive Combat Air Teaming System (CATS) initiative, a broader strategy to create interconnected unmanned systems that team up with human-piloted aircraft. The CATS Warrior has progressed to the prototype phase, having notably completed critical engine ground runs and structural tests with industry partners like Tata Elxsi over the past year. Ground trials are currently underway to perfect its low-observable radar-absorbent material (RAM) coatings and flight control software.

First flight expectations have shifted slightly from late 2026 to 2027 to accommodate these intricate technical refinements. Functioning effectively as a scaled-down fighter jet, the CATS Warrior is a heavy-class platform projected to weigh in the two-to-three-ton range. It is built to escort frontline aircraft like the Tejas Mk1A, Su-30MKI, and Rafale deep into hostile territory. Capable of reaching subsonic speeds of up to Mach 0.9, it boasts a substantial payload capacity of roughly 650 kilograms distributed across internal and external bays. The drone is intended to unleash formidable munitions, including the Smart Anti-Airfield Weapon (SAAW) and Astra Mk2 missiles, and can even release up to 24 ALFA-S swarm drones mid-air, making it a severe force multiplier. For propulsion, current CATS Warrior prototypes utilise twin PTAE-W (an evolution of the PTAE-7) turbojet engines, initially conceptualised for target drones. While these engines supply adequate power for initial testing phases and ground runs, they restrict the platform's maximum endurance. To unlock its full combat range and performance, HAL intends to eventually transition the drone to the more powerful, indigenous HTFE-25 turbofan engine currently under development.

Abyom SpaceTech & Defence Edge Closer To Reusable Rockets With Breakthrough BSE-II Engine Test

Abyom SpaceTech & Defence, a Hyderabad-based start-up, has achieved a significant milestone in the pursuit of reusable launch vehicles by successfully testing its BSE-II liquid rocket engine. The tests, conducted entirely in-house at the BITS Pilani Hyderabad Campus, validated key performance metrics for the 2.5 kN BSE-II engine. This compact yet potent bi-propellant engine represents an evolution from its predecessor, the BSE-I, which pioneered a novel fuel injection method within India. Collectively, the BSE-I and BSE-II engines have endured over 250 hot fire tests.

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These rigorous trials have meticulously evaluated aspects such as thrust stability, ignition reliability, thermal resilience, and overall system integration—essentials for reusable rocket architecture.

Maharashtra police team up with Navy, IIT to keep closer eye on the sea

Maharashtra police, in partnership with the Indian Navy and IIT Madras, have launched a mobile application called Marine Domain Awareness (MDA). The app is designed to track suspicious vessels along the state's 877-km coastline, stretching from Palghar in the north to Sindhudurg in the south.

Traditionally, coastal monitoring has relied on the Automatic Identification System (AIS), which works well for large commercial ships but struggles to detect smaller vessels like fishing and passenger boats that often operate without identification systems. The MDA app, developed under the guidance of a professor at IIT Madras, is aimed at plugging this critical gap. With around 32,000 boats operating along Maharashtra's coast—including 28,000 fishing vessels and 4,000 passenger boats—authorities have long faced difficulties in distinguishing routine activity from potential threats. Under the new initiative, fishermen and passenger boat operators will receive mobile phones equipped with the MDA app. The app was piloted on 100 fishing boats over a month, and officials reported it was highly effective in tracking movement patterns in Indian waters.

Vessel activity will be monitored through a central control room at Mahim Sagari Police Station, with additional rooms planned across seven coastal districts for real-time surveillance and faster emergency response.

IAF eyes arming workhorse transport fleet with long-range drone swarms

Looking to ramp up long-range stand-off strike capability, the Indian Air Force has tapped domestic firms to develop indigenous, air-dropped AI-enabled swarm munitions with a reach of around 500 km, allowing launch aircraft to stay within Indian airspace while targeting deep inside Pakistan and along sectors of the China front. Under the Directorate of Operations (Remote), which is spearheading the project, the IAF wants its workhorse transports, the C-295, C-130J and C-17, to double as strike platforms, releasing canisters that burst open mid-air to unleash coordinated drone swarms on distant targets. Each canister will deploy eight or more one-way attack drones, with individual drones cruising at 350 to 400 km/h and carrying a minimum payload of 30 kg, including sensors. The idea is that these drones have to be self-sufficient. Onboard AI must manage everything from navigation and target search to identification and strike decisions, while remaining effective in environments where satellite navigation may be denied or degraded. The system is expected to deliver a circular error probable (CEP) of under five metres. The IAF is looking at an initial induction of 1,000 to 2,000 systems. The programme is being pursued under the Make-II category. On successful validation of prototypes, procurement will be taken up under the Buy (Indian- IDDM) route, with a minimum indigenous content requirement of 50 percent.



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Titagarh Naval Systems gets nod for ₹610 crore shipyard expansion at Falta

Titagarh Naval Systems Limited has received in-principle approval for a Brownfield Capacity Expansion Project at Falta, West Bengal. The project, supported by the National Shipbuilding Mission, has a total cost of approximately INR 610 crore. Under the government's Shipbuilding Development Scheme, the company will receive capital assistance of INR 129 crore for plant and machinery. This expansion aims to enhance India's shipbuilding capabilities, supporting defense, commercial, and export-oriented vessel construction. Titagarh Naval Systems Limited (TNSL), a wholly owned subsidiary of Titagarh Rail Systems, is set to significantly upgrade its maritime infrastructure. The project, officially approved on April 6, 2026, represents a core component of India's vision for a self-reliant and globally competitive maritime sector. By focusing on Industry 4.0 standards and advanced automation, the new facility at Falta is designed to handle vessels up to 180 meters in length, with an annual production capacity of 12 to 16 vessels.



Global

Sweden Moves to Boost Air, Drone Defense With BAE, Saab Deals

Sweden has awarded separate contracts to BAE Systems and Saab for ground-based air and drone defense systems worth around \$454 million. The deals form part of a broader investment exceeding \$900 million to enhance Sweden's air defense capabilities, covering multiple systems including radar, anti-aircraft weapons, and electronic warfare platforms. Under its agreement with BAE Systems Bofors, a \$180-million contract has been awarded for the procurement of the Tridon Mk2 air defense system.

The Tridon Mk2 is a truck-mounted 40mm system designed to address current air defense gaps.

With multi-target engagement capability, it can counter drones, cruise missiles, and aircraft, while also engaging ground threats such as armored vehicles to protect military units and critical civilian infrastructure. In a separate award, Saab secured a 2.6-billion Swedish krona (\$274 million) contract to deliver a mobile, modular counter-unmanned aerial system. While Saab did not disclose the system's designation, it described it as a modular platform integrating proven sensors, effectors, and select third-party technologies into a single interoperable solution compatible with existing defense assets. The platform will incorporate the Giraffe 1X radar and the Trackfire Remote Weapon Station equipped with a 30mm cannon. The Trackfire will be mounted on the SISU GTP (Terrängbil 24) 4×4 vehicle, jointly procured by Sweden and Finland. Deliveries are scheduled between 2027 and 2028.

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Iran Uses Chinese AI Satellite Imagery to Target U.S. Military Bases and Equipment in Middle East

Iranian forces are using AI-enhanced satellite imagery from Chinese firm MizarVision to refine targeting of U.S. military installations across the Middle East. The imagery uses automated object recognition and tagging, allowing operators to identify bases, equipment, and infrastructure in minutes rather than hours.

The capability compresses the kill chain and raises the risk to U.S. personnel and assets by turning commercially available data into near-real-time targeting intelligence. Officials warn that the development signals a broader shift, in which adversaries leverage private-sector AI tools to close the gap with U.S. surveillance and precision-strike advantages.

Honeywell, Odys Aviation Develop Airborne Counter-Drone Capability

Honeywell has partnered with Odys Aviation to develop an airborne counter-drone system aimed at extending defensive coverage for critical infrastructure and strategic assets beyond fixed and mobile ground-based systems.

The solution combines Honeywell Aerospace's Stationary and Mobile UAS Reveal and Intercept (SAMURAI) system with Odys Aviation's Laila hybrid-electric vertical take-off and landing (VTOL) aircraft.

More than a year of integration work has gone into adapting SAMURAI for airborne deployment, adding a new defensive layer between ground sensors and missile defense systems.



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