

# Defence News (Oct 2024 to Mar (upto 15) 2025)

# I. DEFENCE & TECHNOLOGY INNOVATIONS

#### A. Research & Development Initiatives

- DRDO & IIT Hyderabad unveiled India's Largest Metal 3D Printing Machine (Large Area Additive Manufacturing) for rocket components.
- DRDO revealed India's hypersonic short-range ballistic missile "BM-04"
  - Speed: Hypersonic (Mach 5+)
  - Range: 400–1500 km
  - Headquarters: New Delhi
  - Chairman: Samir V. Kamat
- **DRDO** developed a Supersonic Combustion Ramjet ("scramjet") for powering hypersonic vehicles/missiles.
- DRDO will display the indigenous surface-to-surface short-range ballistic missile "Pralay" at the 76th Republic Day parade (26 January 2025)
  - Range: 350–500 km
  - Payload Capacity: 500-1,000 kg
- DRDO successfully conducted three successive flight trials of its VS HORAD system from Chandipur (Off Odisha coast)
   Details: HQ New Delhi; Chairman Samir V. Kamat; Established 1958
- DRDO's Deep Tech Innovation Projects: Launched an initiative funding 5 military projects (each with ₹50 crore) focusing on quantum technologies, block chain, and AI.
- DRDO, IIT Delhi & Industry Agreements: Signed MoUs for developing ABHED (Advanced Ballistic High Energy Defeat) lightweight bulletproof jackets and other ballistic materials.
- **DRDO VSHORADS Missile Test:** Conducted three flight tests at Pokhran, Rajasthan (man-portable system developed by RCI and DRDO labs).
- Maiden Flight Test of Long Range Land Attack Cruise Missile (LRLACM): Conducted from the Integrated Test Range in Chandipur
  - Partners: Bharat Dynamics Limited (Hyderabad) & Bharat Electronics Limited (Bengaluru)
  - DRDO HQ: New Delhi; Chairman: Samir V. Kamat

#### B. New Systems & Innovative Technologies

- HIMKAVACH Multi-Layer Clothing System: Developed by DRDO for use in extreme cold conditions (from +20°C to -60°C).
- Indigenous Shakti Based Semiconductor Chip: Developed by IIT Madras in collaboration with ISRO for aerospace applications.
- Zen Technologies RCWS Systems: Four remote-controlled weapon and surveillance systems (Parashu, Fanish, Sharur, Durgam) offering thermal imaging, anti-drone, and all-weather capabilities.
- Bhargavastra Micro-Missile System: Tested at Gopalpur Seaward Firing Ranges, Odisha; developed by Economic Explosives Ltd (EEL) to detect and counter drone swarms (tracking beyond 6 km).
- New Missile "Etemad": Revealed by Iran with a range of 1,700 km.
- Contract with QuNu Labs: Indian Army's procurement for Quantum Secure Key (Quantum Key Distribution) as part of the iDEX initiative.

#### C. Maritime & Submersible Technologies

- Matsya 6000 Submersible: Developed by NIOT in Chennai; a key asset for the Samudrayaan Mission (2026) India's first manned deep ocean mission (exploring depths up to 6,000 meters).
- Missile Cum Ammunition Barge (LSAM 12): Built by SECON Engineering in Visakhapatnam to safely carry missiles and ammunition.
- INS Vaghsheer (also referred to as INS Vagsheer): A submarine delivered by Mazagon Dock Shipbuilders (MDL) in Mumbai under Project P-75.
- INS Magdala: The 6th ship of the Anti-Submarine Warfare Shallow Water Craft (ASW SWC) project.
  - Commissioning on 15 January 2025:
  - INS Surat: Last destroyer in the Project 15B series
  - INS Nilgiri: Lead ship of Project 17A stealth frigates
  - INS Vagsheer: Last Scorpene-class submarine under Project P-75

#### **D. Defence Production & Indigenization**

• Indigenized Ammunition Production: Out of 175 types, 154 (88%) are now manufactured in India.



- Defence Production Growth: Expected to rise from the current ₹1.27 lakh crore to ₹1.60 lakh crore by 2025–26.
- Defence Exports Growth: Increased to ₹21,083 crore (\$2.63 billion) in FY2023–24, with a target of ₹50,000 crore by FY2029.
- **Top Defence Export Customers: US, France, and Armenia** (Armenia is the first foreign buyer of the **Akash SAM** system, range 25 km, manufactured by BEL).

## **II. MAJOR DEFENCE CONTRACTS & INDUSTRY DEVELOPMENTS**

#### A. Contracts & Deals

- MoD-Rosoboronexport Deal: \$248 million contract for 1,000 HP engines to power T-72 tanks.
- MoD Contract with BEL: Signed a contract worth ₹2,906 crore for the "Ashwini" Low-Level Transportable Radar (designed to track missiles and UAVs).
- Contract for EON 51 Systems: MoD signed a contract with BEL worth ₹624 crore for the Indian Navy.
- MoD Contract for K9 Vajra-T Artillery Guns: Larsen & Toubro to supply these self-propelled tracked guns at a value of ₹7,628.70 crore (capable of operation in sub-zero, high-altitude conditions).
- India–U.S. \$3.5 Billion Defence Deal: For 31 MQ-9B UAVs along with 170 Hellfire missiles and 310 GBU-39B bombs • Key Feature: MQ-9B UAVs offer a 40-hour endurance with satellite-based over-the-horizon capability.

#### **B. Corporate & Infrastructure Announcements**

- At Aero India 2025 (Bengaluru), HAL renamed its HJT-36 jet trainer from "Sitara" to "Yashas".
- HAL Management Academy (HMA) & IIIT-Dharwad: Signed an MoU to boost collaboration in advanced technologies (AI, Data Science, Robotics, AR/VR, and Digital Manufacturing).
- Garuda Aerospace "Drone City": Announced as India's first "Drone City" in Orvakal village, Kurnool district, Andhra Pradesh.
- L&T Launch of INS Utkarsh: Launched from Kattupalli Shipyard near Chennai; note that L&T's HQ is in Mumbai and CEO & MD is S.N. Subrahmanyan.
- INS Nirdeshak Commissioning: The second ship of the Survey Vessel (Large) project; complements INS Sandhayak (delivered December 2023).
- **GRSE & DRDO Partnership:** GRSE handed over the **"Jaldoot" USV** (for survey and communication missions) developed jointly with DRDO's NSTL.
- NPOL Contract with GRS E: A contract worth ₹490.98 crore to build an acoustic research ship (India's first silent class vessel for underwater surveillance and A SW).
- Delivery of Missile Cum Ammunition Barge LSAM 13: Delivered for INS Tunir as part of an 8-barge project.
- Goa Shipyard Ltd (GSL): Constructed two new Fast Patrol Vessels, "Amulya" and "Akshay", for the Indian Coast Guard.
- Ultra Maritime & BDL Partnership: To produce Sonobuoys in a new Visakhapatnam facility for detecting underwater threats.
- **INS Tushil Commissioning:** A Krivak III-class frigate (built at Yantar Shipyard, Russia) equipped with Brahmos and Shtil missiles; its follow-on frigate "Tamal" is scheduled for Q1 2025.
- Multi-Purpose Vessel "Samarthak": Built by L&T Shipyard; 106 m in length and a speed of 15 knots for towing, target launching, and autonomous operations.

#### C. Joint Ventures & Strategic Partnerships

- BEL-Israel Aerospace Industries (IAI) Joint Venture: Established as BEL IAI AeroSystems Pvt Ltd to support MRSAM systems.
- Tata & Morocco's Armed Forces Partnership: With TASL to produce 150 wheeled armoured platforms; marks the first large defense plant in Morocco.

## **III. MILITARY EXERCISES & JOINT TRAININGS**

#### A. Land & Air Exercises

- Exercise Desert Hunt 2025: Conducted by the IAF with Tri-Service Special Forces at Jodhpur.
- Exercise Devil Strike (16–19 January 2025): A joint exercise along India's northern borders involving elite airborne soldiers from the Indian Army and IAF
  - Indian Army HQ: New Delhi; Chief: General Upendra Dwivedi



- IAF HQ: New Delhi; Chief: Air Marshal Amar Preet Singh; Vice Chief: Air Marshal SP Dharkar
- Indian Navy HQ: Delhi; Chief: Admiral Dinesh K. Tripathi; Vice Chief: Vice Admiral Krishna Swaminathan
- Indian Army's "Swavlamban Shakti" Training Exercise: Conducted by the White Tiger Division under the Sudarshan Chakra Corps at Babina Field Firing Ranges, Jhansi (focused on new technology equipment from Indian defence industries).
- Overhauled T-90 'Bhishma' Mk-3 Tank Rollout: The Indian Army introduced its first overhauled T-90 tank (built under license from Russia at HVF, Avadi).
- **Presentation of President's Colours:** Four battalions (26th & 27th Mechanised Infantry Regiment and 20th & 22nd Brigade of The Guards) honored by Army Chief General Upendra Dwivedi at the Mechanised Infantry Centre, Ahily anagar.
- B. Naval & Maritime Exercises
  - Exercise Sea Dragon 2025: A multilateral naval exercise off Guam
     Participating Nations: India, US, Australia, Japan, Korea
     Indian Asset: P8I MPRA (Maritime Patrol & Reconnaissance Aircraft)
  - Exercise Jal-Thal-Raksha 2025: Held at Bet Dwarka, Gujarat, to bolster security amid illegal encroachments.
  - TROPEX-25: India's largest biennial maritime exercise conducted off the West coast from 30-31 January 2025.
  - Coastal Defence & Search Operations:
    - Sea Vigil 2024: Coordinated by Southern Naval Command in Kerala and Lakshadweep (first NCC participation).
      SAREX-24: The 11th National Maritime Search and Rescue Exercise & Workshop in Kochi (28–29 November 2024).
    - Indian Coast Guard "Sagar Kavach" Exercise: A 2-day security drill in West Bengal to validate coastal SOPs.
  - **INS Mumbai Participation:** The guided missile destroyer INS Mumbai is taking part in the multinational "LA PEROUSE" exercise hosted by France.

#### C. Joint International & Multilateral Exercises

- Exercise Khanjar-XII 2025: A 12th joint military exercise with Kyrgyzstan at Tokmok to strengthen counter-terror collaboration.
- India–Bangladesh Exercises:
   6th "CORPAT" and 4th "BONGOS AGOR" exercises in the Bay of Bengal to curb illicit maritime activities.
- Tri-Services Amphibious Exercise "Amphex 2025": Held in Karwar, Karnataka.
- Exercise Dharma Guardian (6th Edition): A joint military exercise with Japan at Mount Fuji, Japan from 25 February –9 March 2025; runs in parallel with the Malabar and Exercise Shinnyu Maitri exercises
   Additional Info: Japan HQ in Tokyo; currency: Yen; PM; Shigeru Ishiba.
- Exercise Ekuverin (13th Edition): A joint military exercise between the Indian Army and the Maldives National Defence Force commencing on 2 February 2025 in the Maldives ("Ekuverin" means "Friends" in Dhivehi).
- Cyclone 2025: The 3rd joint military exercise between India and Egypt at the Mahajan Field Firing Range, Rajasthan.
- **Exercise Winged Raider:** A joint exercise by the Indian Army and the IAF.
- INS Tarini Expedition Navika Sagar Parikrama II: The sailing vessel INSV Tarini crossed Cape Horn during the 3rd leg of its expedition.
- India–Nepal Exercise "Surya Kiran": Conducted from 31 December 2024 to 13 January 2025 with 334 personnel from the 11th Gorkha Rifles, focusing on jungle warfare, counter-terrorism, and HADR.
- 4th India–Malaysia Exercise "HARIMAU SHAKTI": Held from 2–15 December 2024 at Bentong Camp, Malaysia
   Participants: 78 Indian personnel (MAHAR Regiment) and 123 Malaysian personnel (Royal Malaysian Regiment).
- 1st Joint Tabletop Exercise "CINBAX" (India–Cambodia): Held in Pune from 1–8 December 2024
   Participants: 20 personnel each from the Cambodian Army and an Indian Infantry Brigade.
- NS G Exercises in Gurugram: Concluded exercises "Agnipariksha" (counter-terrorism) and "Visfot Kawach" (counter-IED) with 667 elite commandos.
- Exercise Garuda Shakti (9th Edition): Joint exercise between India and Indonesia in Jakarta focusing on counter-terrorism operations.
- India–US Joint Exercise "Vajra Prahar" (15th Edition): Conducted at Orchard Combat Training Centre, Idaho to enhance joint Special Forces operations.
- VINBAX 2024 Vietnam–India Bilateral Army Exercise (5th Edition): Held from 4–23 November 2024 in Ambala and Chandimandir, Haryana
  - Indian Contingent: 47 personnel from the Corps of Engineers.
- AUSTRAHIND (3rd Edition): A joint military exercise with Australia conducted in Pune, Maharashtra.
- Joint Tri-Services Exercise "Poorvi Prahar": Scheduled from 10–18 November 2024 along the eastern theatre (India–China border), employing Chinook and Rudra helicopters and M777 howitzers.
- Antariksha Abhyas 2024: A three-day exercise (11–13 November 2024) by the Defence Space Agency simulating threats to space-based assets

• Participants: Defence Cyber Agency, Defence Intelligence Agency, Strategic Forces Command; IDS HQ: New Delhi; Chief: General Anil Chauhan

#### D. Tabletop, Virtual & Innovation Initiatives

• **DefConnect 4.0:** Launched by Rajnath Singh as part of iDEX initiatives (including ADITI 2.0 and DISC 12 challenges with a fund of ₹50 crore).



S wavlamban 2024 – Indian Navy Innovation Seminar: Held in New Delhi where Big Bang Boom Solutions presented the "Vajra Shot" handheld anti-drone jammer.

# **IV. NAVAL & MARITIME OPERATIONS**

A. Naval Operations & Exercises

- TROPEX-25: India's largest biennial maritime exercise off the West coast (30-31 January 2025).
- INS Tarini's Historic Voyage: The vessel crossed Point Nemo (the "Oceanic Pole of Inaccessibility" located ~2,688 km from the nearest landmass).
- Maritime Partnership Exercise (MPX): Conducted by the Indian Navy and the German Navy (represented by INS Delhi from the Eastern Fleet) to strengthen maritime connectivity.

#### **B. Coastal Defence & Search Operations**

- Sea Vigil 2024: Coordinated by Southern Naval Command in Kerala and Lakshadweep; marked by first-time participation of the NCC.
- SAREX-24: The 11th National Maritime Search and Rescue Exercise & Workshop in Kochi (28–29 November 2024) themed "Enhancing Search and Rescue Capabilities through Regional Collaboration."
- Indian Coast Guard Fast Patrol Vessels (FPVs): Two vessels named "Adamya" and "Akshar" built by Goa Shipyard Ltd to enhance coastal patrolling.
- Coastal Security Exercise "Sagar Kavach": Conducted by the Indian Coast Guard in coordination with the Navy, Customs, Coastal Police, CRPF, MPA, and Goa government to improve unified coastal security communication.
- Delivery of Missile Cum Ammunition Barge LS AM 13: For INS Tunir, ensuring a steady supply chain for missile/ammunition support.

#### **C. Submarine Operations**

- INS Vaghsheer/Submarine: Delivered by MDL in Mumbai as part of Project P-75 (Scorpene-class).
- India's 4th SSBN Submarine, S4\*: A nuclear-powered ballistic missile submarine featuring 75% indigenous content and a 3,500-km SLBM (K-4) range
  - Note: INS Arihant and INS Arighaat have been commissioned; the expected commissioning of Aridhman (S4) is in 2025.
- Cabinet Committee on Security: Approved the construction of two indigenous nuclear attack submarines (SSN "hunter-killers") to enhance underwater combat capability.

## **V. AVIATION & AEROSPACE DEVELOPMENTS**

- GE Aerospace Contract with IAF: A five-year maintenance contract covering the Apache AH-64E-I helicopter fleet (powered by T700 GE 701D engines).
- Indigenous Shakti Based Semiconductor Chip: Developed by IIT Madras & ISRO for aerospace applications.
- First 'Make in India' C295 Transport Aircraft: Expected to roll out from Vadodara (Gujarat) in September 2026, valued at ₹21,935 crore for 56 aircraft to replace the Avro-748 fleet.
- IAF & RS AF Joint Military Training (JMT) Exercise: The 12th edition held at Kalaikunda Air Force Station, West Bengal to enhance interoperability.

## VI. INTERNATIONAL DEFENCE COOPERATION & STRATEGIC DIALOGUES

- Defence MoUs at Aero India 2025: India signed defence cooperation MoUs with Yemen, Zimbabwe, Ethiopia, Gambia, and Gabon (focusing on military training, capacity building, and institutional engagement).
- India & Belgium: Agreed to establish a Defence Task Force.
- Trilateral Air Combat Exercise "Desert Knight": Launched by India, France, and the UAE over the Arabian Sea; also supplemented by bilateral exercises Exercise Shakti (Army), Varuna (Navy), and Garuda (Air Force).



- India–Nepal Exercise "Surya Kiran": Joint military exercise conducted from 31 December 2024 to 13 January 2025.
- Indian Navy & Oman Navy Exercise "Naseem-Al-Bahr": A joint naval drill off the Goa coast with gun firings, anti-aircraft firings, maritime manoeuvres, and RASAPS.
- Beibu/Interaction 2024: Joint naval drills between Russia and China in the Sea of Okhotsk.
- 16th BRICS Summit: Held in Kazan, Russia (22–24 October 2024) under the theme "Strengthening Multilateralism for Just Global Development and Security" and the issuance of the Kazan Declaration.
- Singapore–India Maritime Bilateral Exercise (SIMBEX): The 31st edition scheduled from 23–29 October 2024 at Eastern Naval Command, Visakhapatnam.
- **KAZIND-2024:** An India–Kazakhstan joint military exercise held in Auli, Uttarakhand (30 September–13 October 2024) with 120 Indian (KUMAON) and Kazakh forces.
- Exercise Malabar 2024: A quad-nations naval exercise hosted by India (8–18 October 2024) involving Australia, Japan, and the US, with additional initiatives like the Quad-at-Sea mission (2025) and MAITRI.
- Cabinet Committee on Security: Also approved the construction of indigenous nuclear attack submarines to boost underwater capabilities.

## **VII. DEFENCE SPACE & CYBER INITIATIVES**

- Antariksha Abhyas 2024: A three-day exercise (11–13 November 2024) by the Defence Space Agency simulating threats to space-based assets; involved the Defence Cyber Agency, Defence Intelligence Agency, and Strategic Forces Command (IDS HQ: New Delhi; Chief: General Anil Chauhan).
- DefConnect 4.0: Launched by Rajnath Singh as part of iDEX initiatives, including ADITI 2.0 and DISC 12 challenges (total fund of ₹50 crore to incubators).

### VIII. CORPORATE, INDUSTRY & INFRASTRUCTURE PARTNERSHIPS

- HAL Renaming: The HJT-36 jet trainer was renamed "Yashas" at Aero India 2025.
- HAL Management Academy & IIIT-Dharwad MoU: For strengthening industry–academia collaboration in advanced technologies.
- DRDO, IIT Delhi & Industry Agreements: For ballistic materials (ABHED jackets) and the establishment of the DIA-CoE (Defence Industry-Academia Centre of Excellence).
- Hindustan Shipyard Ltd (HSL) & Kongs berg Maritime Partnership: To enhance Indian Navy operational capacity with advanced replenishment-at-sea (RAS) technology; approval for 5 new Fleet Support Ships worth ₹19,000 crore (delivery by mid-2027).
- BEL-IAI Joint Venture: Formation of BEL IAI AeroSystems Pvt Ltd for MRSAM support.
- Tata & Morocco's Armed Forces Partnership: For production of 150 wheeled armoured platforms, establishing Morocco's first large defence plant.
- Delivery of Asmi SMGs: Lokesh Machines Ltd delivered 550 Asmi SMGs (developed by ARDE Pune) to the Indian Army's Northern Command.
- Multi-Purpose Vessel "Samarthak": Built by L&T Shipy ard, supports towing, target launching, and autonomous operations.
- NPOL & GRSE Contract: A ₹490.98 crore deal to build an acoustic research ship for underwater surveillance.
- INS Tushil Commissioning: At Yantar Shipyard, Russia, as part of Project 1135.6.

## **IX. MISCELLANEOUS & OTHER DEVELOPMENTS**

- INS Talwar in IBS AMAR Exercise: Participated alongside navies from India, Brazil, and South Africa at Simon's Town, South Africa.
   INS Utkarsh Launch: By L&T, near Chennai (following the launch of the 1st MPV, INS Samarthak).
- Launch of 25T Bollard Pull Tug "Ashva": Launched at Titagarh Rail Systems Ltd, Kolkata by Cmde Ajay Yadav as part of the "Atmanirbhar Bharat" initiative.
- Million Coast Guard & Indonesia Coast Guard MoU Renewal: Extended for 3 years on maritime safety and security cooperation.
- "Trajan" Artillery Gun System: A 155 mm towed system developed by L&T and KNDS, chosen for induction by Armenia.
- **Top Defence Export Clients:** In addition to the US and France, **Armenia** is highlighted as the biggest client for finished Indian weapons.
- INS Nirdeshak (Survey Vessel Large): Delivered by GRSE for oceanographic data collection and defence applications.



Iran Military Showcase: Displayed capabilities with the Shahed-136B drone (4,000 km range) and the Jihad missile (1,000 km range).

# X. TABLED TOPIC UPDATES (Summary of Additional Key Points)

- Indian Coast Guard's Coastal Security Exercise "Sagar Kavach": Enhanced coordination with Navy, Customs, Coastal Police, CRPF, MPA, and Goa government.
- India–U.S. \$3.5 Billion Defence Deal: For 31 MQ-9B UAVs with 170 Hellfire missiles and 310 GBU-39B bombs (40-hour endurance, satellite-based).
- Indian Army's "Swavlamban Shakti" Training Exercise: Focused on new technology equipment (NTEs) by the White Tiger Division at Babina, Jhansi.
- Indian Navy & Oman Navy Exercise "Naseem-Al-Bahr": Joint naval operations including gun and anti-aircraft firings, maritime manoeuvres, and RA SAPS.
- IAF & RS AF Joint Military Training (JMT): 12th edition at Kalaikunda, West Bengal.
- India's 4th SS BN Submarine, S4\*: Nuclear-powered with 75% indigenous content and a 3,500-km SLBM (K-4); Aridhman expected in 2025.
- Cabinet Committee on Security Indigenous SSN Submarines: Approved construction of two "hunter-killer" nuclear attack submarines.
- INS Talwar in IBS AMAR Exercise: Joint exercise with navies of India, Brazil, and South Africa.
- Integrated Defence Staff (IDS) 24th Raising Day: Celebrated on 1 October 2024; Chief: Lt Gen JP Mathew.
- Singapore–India Maritime Bilateral Exercise (SIMBEX): 31st edition at Eastern Naval Command, Visakhapatnam (23–29 October 2024).
- Launch of "Agniastra": A 2.5-km range, microprocessor-based device launched during the Army Commanders Conference in Gangtok, Sikkim.
- Maritime Partnership Exercise (MPX): Joint operation with the German Navy.
- 16th BRICS Summit: Held in Kazan, Russia (22–24 October 2024) with the theme "Strengthening Multilateralism for Just Global Development and Security."
- Launch of ASWSWC "Abhay": The 7th Anti-Submarine Warfare Shallow Water Craft launched by GRSE at L&T, Kattupalli.
- High-Altitude Sustenance Tech: DIPAS/PGCIL project for the Pang-Kaithal HVDC project (15,760 ft, Ladakh) for energy security and solar power integration.
- Beibu/Interaction 2024: Russia–China naval drills in the Sea of Okhotsk involving missile and artillery firings.
- BEL-IAI Joint Venture: Established for support of MRSAM systems.
- DRDO VSHORADS Missile Test: Conducted in Pokhran, Rajasthan.
- Tata & Morocco's Armed Forces: Partnership to produce 150 wheeled armoured platforms.
- Exercise Malabar 2024: Quad naval exercise hosted by India with Australia, Japan, and the US.
- Delivery of Asmi SMGs: 550 units delivered to Northern Command.
- Iran Military Showcase: Featuring the Shahed-136B drone and Jihad missile.
- Missile Barge "LS AM 12": 6th barge launched, built by SECON Engineering Projects Pvt Ltd at Mira Bhay and ar.



**Interview Panel Member** 

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