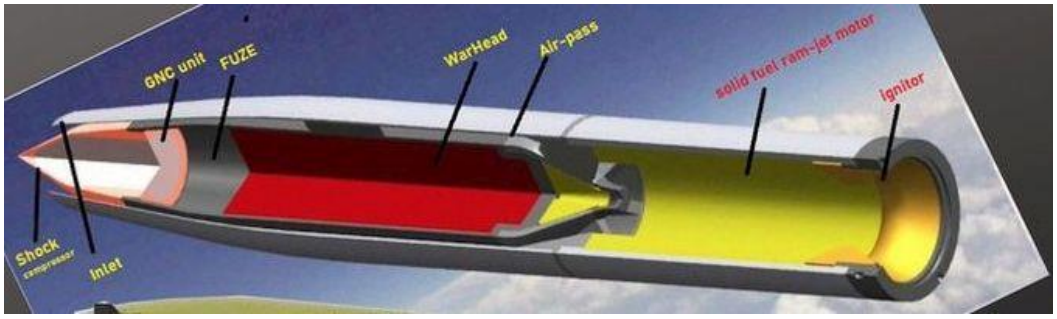
Monthly Defence Current Affairs January 2026

Indian Army To Be World's First To Use Ramjet-Powered 155 Mm Artillery Shells

- The Indian Army stands on the cusp of a ground breaking milestone in artillery technology, poised to become the world's first military force to deploy ramjet-powered 155 mm artillery shells.
- This ambitious endeavour underscores India's 'Atmanirbharta' or self-reliance initiative, spearheaded in collaboration with IIT-Madras. The innovation promises to extend the range of existing shells by 30-50 per cent, all without diminishing their lethal impact on targets.
- Central to the Indian Army's artillery modernisation drive has been a focus on enhancing rocket ranges, precision, and munition performance. Longer reach and pinpoint accuracy represent key priorities amid evolving battlefield demands. The ramjet-assisted 155 mm shell emerges as a pivotal advancement in this domain, leveraging proven missile technology for artillery applications.
- Development of the shell is underway through a partnership between IIT-Madras and the Indian Army, facilitated by the Army Technology Board (ATB). This project has already secured formal approval, signalling strong institutional backing. Trials are progressing apace, with successful tests conducted at Rajasthan's Pokhran field firing ranges, a critical proving ground for indigenous munitions.
- The Indian Army's artillery inventory spans multiple calibres, reflecting a legacy of diverse acquisitions. Russian-origin 130 mm M-46 medium guns and 122 mm field guns remain in service alongside 105 mm light pieces. The 155 mm category dominates modernisation efforts, embodying NATO-standard precision and range.
- Artillery classification delineates roles by calibre and purpose. Up to 105 mm qualifies as 'light', tailored for infantry close support with rapid fire rates. The

106-155 mm 'medium' bracket excels in bombardment, striking enemy positions at standoff distances.



DRDO Tests PARLAY Tactical Ballistic Missile

- DRDO has achieved a significant milestone with the successful salvo user trials of the Pralay tactical short-range ballistic missile off the Odisha coast.
- Conducted on 31 December 2025 at the Integrated Test Range (ITR) in Chandipur, the trials involved two cannisterised missiles launched in quick succession from the same launcher around 10:30 am. These back-to-back tests validated the missile's reliability, paving the way for its early induction into the Indian armed forces.
- The Pralay missile, weighing five tonnes, carries a one-tonne payload over 350 km, extending to 500 km with a halved payload. This solid-propellant quasi-ballistic missile employs advanced guidance and navigation systems for high precision, including mid-air manoeuvres and hit-to-kill capability.
- It precisely followed intended trajectories during the trials, demonstrating maximum and minimum range performance while meeting all mission objectives.
- Senior DRDO scientists, representatives from the Indian Air Force (IAF) and Indian Army, and industry partners witnessed the event.
- Systems integration was handled by development-cum-production partners, with terminal events confirmed via onboard ship telemetry near impact points. Defence Minister Rajnath Singh commended DRDO, the armed forces, defence public sector undertakings, and industry for establishing the missile's salvo-launch reliability.

NIBE Secures ₹293 Crore Army Contract

- NIBE Limited has secured a significant supply contract with the Indian Army under the Ministry of Defence for the manufacturing and supply of ground equipment, accessories, Electronic Sequence Programming (ESP) units, and ammunition tailored for the Universal Rocket Launcher System.
- This development marks a revival of a major defence procurement initiative, with the total contract value standing at ₹292.69 crore, inclusive of taxes and duties. The system stands out for its versatility, capable of integrating multiple rocket types to deliver precision strikes at ranges of 150 km and 300 km.
- The Universal Rocket Launcher System, often referred to as SURYA in collaborative contexts, derives from advanced technology originally developed by Israel's Elbit Systems through their Precise and Universal Launching System (PULS).
- NIBE Limited, a publicly listed entity on the BSE and NSE since its evolution from incorporation in 2005, specialises in mission-critical defence platforms for the Indian Army, Navy, and Air Force.

S. Shrinivas Takes Charge as Chief of IAF Training Command

- The Indian Air Force (IAF) has appointed Air Marshal S. Shrinivas as the new head of its Training Command. Which marking an important leadership change in the force's training and human resource development wing.
- Air Marshal S. Shrinivas assumed charge as Air Officer Commanding-in-Chief (AOC-in-C) of the Training Command of the Indian Air Force on January 1. After taking charge, he paid homage to fallen personnel at the Training Command War Memorial.

Air Marshal Nagesh Kapoor Appointed as Vice Chief of the Air Staff

- The IAF witnessed an important leadership transition with Air Marshal Nagesh Kapoor assuming charge as the Vice Chief of the Air Staff. With nearly 40 years of distinguished service he brings deep operational, instructional and strategic experience.
- Air Marshal Nagesh Kapoor assumed charge as the Vice Chief of the Air Staff of the Indian Air Force on January 1, 2026, succeeding Air Marshal Narmdeshwar Tiwari, who superannuated after completing 40 years of service.
- Air Marshal Nagesh Kapoor is a senior fighter pilot officer of the Indian Air Force with extensive experience across command, operations, training, and staff roles. He is known for his contribution to fighter operations, training reforms, and leadership at key air commands.
- The Indian Air Force (IAF) has appointed Air Marshal S. Shrinivas as the new head of its Training Command. Which marking an important leadership change in the force's training and human resource development wing.

Indian Coast Guard's First Indigenously Designed 'Samudra Pratap'

- The Indian Coast Guard's first indigenously designed and built pollution control vessel, Samudra Pratap, commissioned into the force by Defence Minister Rajnath Singh on January 5, officials said.

- Measuring 114.5 metres and weighing 4,200 tonnes, the vessel has over 60 per cent indigenous content. It can achieve speeds of over 22 knots and has an endurance of 6,000 nautical miles.
- Samudra Pratap will play a key role in enforcing marine pollution control regulations, maritime law enforcement, search and rescue operations, and protecting India’s Exclusive Economic Zone (EEZ).

IAF Chief Hails TEJAS' 25-Year Revolution

- India's indigenous Light Combat Aircraft (LCA) TEJAS marked a quarter-century milestone on 4 January 2001, when it undertook its maiden flight, soaring for approximately 18 minutes and attaining speeds of up to 280 knots.
- This pivotal moment, celebrated recently at a national seminar organised by the Aeronautical Development Agency (ADA), underscores the program's transformative impact on the nation's defence aviation landscape.
- To date, the IAF has inducted 38 TEJAS aircraft, comprising 32 fighters and six trainers, into two operational squadrons. This fleet integration represents a significant step towards self-reliance, reducing dependence on foreign imports and bolstering frontline combat capabilities.
- Looking ahead, the IAF chief expressed keen anticipation for upcoming variants, including the **TEJAS MK-1A, TEJAS MK-2**, and the fifth-generation Advanced

Medium Combat Aircraft (**AMCA**). He voiced confidence that these programs would surpass the TEJAS in success and adhere to tighter timelines.

- India's partnerships, such as with General Electric for the F414 engine in MK-1A and MK-2 variants, exemplify strategic collaborations that blend indigenous design with global best practices. This hybrid approach accelerates progress while nurturing local R&D.

Arihant Class S4* Likely To Be Named INS Arisudan

- The Arihant-class nuclear-powered submarines represent a cornerstone of India's strategic deterrence, with the fourth vessel, designated S4*, poised to join the fleet as **INS Arisudan**.
- Launched by Defence Minister Rajnath Singh on 16 October 2025, this submarine embodies the Sanskrit theme of **'destroyer of enemies**' shared by its predecessors: INS **Arihant, INS Arighaat, and INS Aridhaman**.
- The naming process for INS Arisudan follows established naval protocol, beginning with a proposal from the Indian Navy's ship-naming committee.
- This recommendation advances to the Defence Ministry for clearance before final approval by the President of India. Commissioning remains targeted for 2027, bolstering India's sea-based nuclear triad amid ongoing regional tensions.
- INS Aridhaman, the third in the class, advances towards induction in early 2026 following intensive sea trials. Launched in November 2021 at Visakhapatnam's Ship Building Centre, it features an upgraded Compact Light Water Reactor for enhanced stealth and endurance.

- Larger by about 1,000 tonnes than INS Arihant, it accommodates eight vertical launch tubes for advanced missiles.

Indian Navy Setting Up A New Base At Haldia

- The Indian Navy is establishing a new naval base at Haldia in West Bengal to bolster its operational footprint in the Bay of Bengal. This development underscores India's strategic intent to enhance maritime surveillance and rapid response capabilities amid evolving regional security dynamics.
- Situated on the Hooghly River near its confluence with the Haldi River, Haldia benefits from proximity to the Bay of Bengal, approximately 130 kilometres from the deep-sea Sandheads area.
- The existing Haldia Dock Complex, operational since the 1970s, already handles bulk cargo and accommodates vessels up to Panamax size with a draft of 9.1 metres, providing a solid infrastructural foundation for naval adaptation.
- The base will primarily support smaller warships, including Fast Interceptor Crafts and New Water Jet Fast Attack Craft, enabling swift deployment for coastal defence and anti-piracy patrols.
- This aligns with the Navy's broader constabulary roles, such as maritime domain awareness and humanitarian assistance, in a region witnessing heightened extra-regional naval activity.
- Recent announcements highlight the base's role in supporting fast-attack craft amid growing focus on the Bay of Bengal, where militarisation has intensified with over a hundred warships from extra-regional navies operating routinely.
- This move enhances India's deterrence posture without escalating tensions, leveraging the Navy's attributes of mobility and flexibility.

ISRO Explores Establishing Orbiting AI Data Centres

- ISRO has indeed embarked on a preliminary study assessing the feasibility of establishing in-orbit Artificial Intelligence data centres, as confirmed by the Department of Space in response to a query in the Rajya Sabha.
- This initiative reflects a strategic push towards edge computing in space, where satellites could process and store vast amounts of data directly in orbit rather than transmitting raw information back to Earth.
- Such an approach promises to alleviate bandwidth constraints and reduce latency for time-critical applications, particularly in satellite imaging and communications.
- Preliminary evaluations by ISRO indicate that the concept is technically viable, leveraging advancements in onboard processors, satellite hardware, and solar power systems. The organisation is now conceptualising a proof-of-concept system capable of handling computation and storage in orbit.
- Launch costs, though declining with reusable rocket technologies, remain a barrier to scaling such systems. High-bandwidth communication links between satellites and ground stations are essential yet challenging, requiring optical inter-satellite networks for terabit-per-second throughput.
- Orbital debris management and international regulatory approvals for large constellations further complicate deployment.

Shaktibaan Regiments To Be Raised For Unmanned Warfare

- In a major push to strengthen its drone warfare capabilities, the Indian Army is raising 15-20 Shaktibaan regiments which would be equipped with swarm drones, loitering munitions and long-range UAVs which would be capable of striking targets from **5 kms to 500 Kms**.
- The Shaktibaan Regiments would be part of the Indian Army's Regiment of Artillery and initial units have already been operationalised. The major force restructuring, conceived by Indian Army Chief Gen Upendra Dwivedi, is part of the forces' transformation to tackle the challenges of modern warfare.
- For targets beyond **400-500 k**m, the Indian Army's Regiment of Artillery has the BrahMos supersonic cruise missiles and is now also receiving the **120 km-range Pinaka rockets.**
- To equip the first of the Shaktibaan regiments, the Indian Army will shortly issue a tender under a fast-track procedure to procure **850 loitering munitions**, along with the required launchers, they said.
- Indian firms, including Solar Defence and Aerospace, AdDefence and RapheM, are likely to be the contenders for this Rs 2,000 crore project.
- Along with the Shaktibaan regiments, the Regiment of Artillery will also raise around 35-40 **Divyastra batteries** as part of artillery divisions, equipped with drones of different types with lethal strike capabilities.

- The Indian forces used a number of loitering munitions like the **Nagastra, Sky Strikers, Harpy and Harop** to target enemy targets during Operation Sindoor to destroy enemy bases and Pakistan Army bases after extension of hostilities by Pakistan.

Indian Navy Set To Commission 19 Warships In 2026

- India's naval ambitions are reaching a pivotal milestone in 2026, with the commissioning of 19 warships marking the largest single-year force accretion in its history.
- This surge underscores the rapid maturation of the nation's domestic shipbuilding capabilities, transforming the Indian Navy into a more potent blue-water force amid escalating regional tensions.
- Central to this achievement are the Nilgiri-class stealth frigates, with multiple units slated for induction. These 7,400-tonne warships boast advanced stealth features, including reduced radar cross-sections and integrated sensor suites, enhancing survivability in high-threat environments.
- Their deployment will bolster India's anti-submarine warfare and surface strike capabilities across the Indian Ocean Region.
- Looking ahead, 2026's inductions pave the way for the Navy's 2035 goal of 200 warships, including three indigenous aircraft carriers and six nuclear submarines. Initiatives like **Project 75I for AIP-equipped submarines** and the Next Generation Missile Vessels will sustain momentum. Private sector forays, such as Adani's planned Kochi yard, promise diversified capacity.

India & Germany on Verge of $8 Billion Submarine Agreement

- Germany and India are hammering out the details of a submarine manufacturing deal worth at least **$8 billion** — the largest-ever defense agreement for New Delhi.
- The agreement, negotiated ahead of Chancellor Friedrich Merz's visit to the South Asian nation next week, would for the first time include technology transfer for submarine production, the people said.
- India's navy operates about a dozen aging Russian submarines and six new French-made models. If the deal under discussion goes ahead, India would scrap plans to buy three more French subs, the people said.
- Germany's **Thyssenkrupp Marine Systems** GmbH and Indian state-owned **Mazagon Dock Shipbuilders Ltd**. will work together to manufacture the vessels, said the people, who asked not to be named discussing confidential information.
- Merz, on his maiden visit to India, will meet with PM Narendra Modi for talks in the western Indian state of Gujarat before flying to the technology hub of Bengaluru to see German companies there.
- The two countries are likely to increase cooperation in the pharmaceuticals sector as well as defense, the people said. Merz also plans to use his talks with

Modi to speed up broader negotiations between the European Union and India on a free-trade agreement.

- The new submarines will be equipped with air-independent propulsion systems, which increase the boats' endurance and allows them to remain submerged longer than with diesel-electric propulsion, the people said.
- The vessels will add to New Delhi's ability to police the vast waters of the Indian Ocean region as China asserts its presence there.
- Even so, **India is the second-largest importer of military hardware** globally, sourcing most of its equipment from Russia, according to the Stockholm International Peace Research Institute, an international think tank that tracks weapons purchases.

Amit Shah Inaugurates IED Data Management System

- Launching the national IED data management system through a video conferencing link, Amit Shah said that the two-way comprehensive and integrated online platform will be available to National Investigation Agency, anti-terrorism squads, state police forces and central armed police forces.
- Shah said that data related to any explosion or IED incident can be included in this system. "By utilising this data, necessary guidance can be obtained during investigations in every state.

- He said that NIDMS will prove extremely important in investigating terrorist activities, understanding trends in explosions and formulating effective strategies against them."

Ground Test of Scramjet Engine For Hypersonic Missiles

- DRDO has achieved a key milestone in the development of hypersonic missiles, as it successfully conducted a long-duration ground test of its actively cooled scramjet combustor, the defence ministry said.
- Defence Research & Development Laboratory (DRDL), the Hyderabad-based laboratory of the DRDO, has achieved a "path-breaking milestone" in the development of such missiles, the ministry said, as it shared the update on scramjet-powered hypersonic technology.
- "The DRDL successfully conducted an extensive long-duration ground test of its Actively Cooled Scramjet Full Scale Combustor, achieving a run time of over 12 minutes at its state-of-the-art Scramjet Connect Pipe Test (SCPT) Facility on January 9," it said in a statement.

- A hypersonic cruise missile is capable of exceeding five times the speed of sound (over 6,100 kmph) for extended periods, the ministry said.

India Launches PARAM SHAKTI

- India has taken a significant stride in its pursuit of technological self-reliance with the unveiling of **PARAM SHAKTI**, a state-of-the-art supercomputing facility at **IIT-MADRAS**.
- Constructed entirely within the country, this powerhouse leverages C-DAC's indigenous RUDRA servers alongside open-source software, embodying the Atmanirbhar Bharat vision in advanced computing.
- PARAM SHAKTI boasts an impressive computational prowess, capable of executing over 3.1 quadrillion calculations per second. This remarkable performance catapults IIT-MADRAS into the league of India's most formidable academic computing centres, rivalled by few others in terms of raw power and efficiency.
- The facility's architecture draws on cutting-edge RUDRA servers developed by the Centre for Development of Advanced Computing (C-DAC), India's premier institution for high-performance computing.
- Materials science research gains a vital tool through PARAM SHAKTI's ability to perform atomistic simulations and predict novel alloys or composites. For defence applications, this translates to breakthroughs in lightweight, high-

strength materials for aircraft fuselages and missile casings, bolstering India’s manufacturing edge.

DRDO Successfully Flight-tests Man Portable ATGM

- A new version of a man portable anti-tank guided missile was successfully test-fired at a firing range in Maharashtra's Ahilya Nagar.
- The defence ministry said the weapon system with "top attack capability" was tested against a moving target.
- "The third generation fire and forget man portable anti-tank guided missile (MPATGM) with top attack capability was flight-tested successfully against a moving target in KK Ranges, Ahilya Nagar," it said.
- The test-firing was carried out by the DRDO on Sunday.
- The warhead is capable of defeating modern main battle tanks, the ministry said. The missile can be launched from a tripod or military vehicle launcher, it said in a statement.

Indian Sailing Vessel 'Kaundinya'

- A fortnight after Indian Navy's 'Kaundinya' embarked on her maiden overseas voyage from Porbandar in Gujarat, the sailing vessel, which does not have an engine and was built using an over 2000-year-old stitching technique, has entered Oman waters.
- Economist and Prime Minister's Economic Advisory Council member Sanjeev Sanyal, who is on board the vessel on Monday morning said that the vessel is "well inside Omani waters, North of Sur."
- The ship had embarked on her first voyage from Porbandar in Gujarat to Muscat, Oman on December 29, 2025, along the ancient maritime trade route.
- On Sunday, Sanyal had posted on his social media, "INSV Kaundinya flying the tricolour across the Arabian Sea: Ship of Wood with Men of Steel."
- Kaundinya refers to several significant figures and concepts, most notably Ajnata Kaundinya, an early disciple of Buddha who became the first to attain enlightenment (arahant), and Kaundinya I (Preah Thong), a legendary Indian mariner who co-founded the ancient Kingdom of Funan in Southeast Asia by marrying Queen Soma.

- The name also signifies a prominent Hindu rishi (seer), a clan (Gotra), and lends its name to India's INSV Kaundinya (a heritage ship) and the Kaundinya Wildlife Sanctuary.

PSLV-C62 Fails To Place EOS-N1 Satellite Into Orbit

- The PSLV-C62/EOS-N1 mission, launched on 12 January 2026 from the Satish Dhawan Space Centre in Sriharikota, has encountered a significant anomaly towards the end of its PS3 stage, marking another setback for ISRO's workhorse rocket.
- A detailed data analysis is now underway to pinpoint the root cause of this issue. The PSLV, a four-stage rocket comprising two solid propellant stages and two liquid ones, relies on precise sequencing for successful payload injection.
- The vehicle lifted off at 10:18 a.m. IST following a 22.5-hour countdown, carrying the primary EOS-N1 earth observation satellite and 15 co-passenger payloads developed by start-ups, academia, and international partners.
- EOS-N1, developed under the commercial auspices of NewSpace India Limited (NSIL), serves strategic earth observation needs, underscoring its importance to India's defence and surveillance ecosystem. The mission's co-passengers reflect growing international collaboration and private sector involvement in Indian space launches.

Around 80% of 114 Rafale Jets To Be Built in India

- In the proposed deal for buying 114 Rafale fighter jets for the Indian Air Force, around 80 per cent of the combat aircraft are planned to be built in India.
- The project would also see some of the manufacturing facilities getting shifted from France to India.
- The Indian side is also discussing with French officials for maximising the localised content in the deal with plans of setting up the Maintenance, Repair and Overhaul (MRO) facility within India to maximise the serviceability of the planes, government sources told ANI.
- The sources said the two sides will negotiate the cost of the project further. The French price offer has taken into account the inflation rate increase in prices at around four per cent per annum.
- Sources said that with a large number of parts and systems of the Rafales to be built in India, there is also a possibility of the French Dassault Aviation using an Indian entity for export orders and offering Indian facilities as a hub for MRO for countries in the region operating the Rafale and other Dassault aircraft.
- Sources said in the present circumstances, the Rafale has been found to be the best suited to meet Indian Air Force requirements for fighter aircraft, as the serviceability is around 90 per cent, which is much higher than any other aircraft in the world, including the American F-35.

New ITBP & BSF Appointment

- Senior IPS officer Shatrujeet Singh Kapoor was on Wednesday appointed as the director general of the Indo-Tibetan Border Police (ITBP).
- He will succeed incumbent Praveen Kumar, who has been named the new chief of the Border Security Force (BSF).
- Kapoor, a 1990-batch Indian Police Service (IPS) officer, is currently working in his cadre state Haryana.
- He has been appointed DG, ITBP for a period up to October 31, 2026, the date of his superannuation, according to a Personnel Ministry order.
- Incumbent ITBP chief Kumar has been named new DG, BSF.
- Kumar, a 1993-batch IPS officer of West Bengal cadre, has been appointed for a period up to September 30, 2030, the date of his retirement.

Bharat Forge Bags Drone Supply Contracts

- Diversified group Bharat Forge said its aerospace division has secured contracts worth approximately **Rs 300 crore** to supply drones.
- These contracts for the Indian Army and Navy cover a range of indigenous unmanned systems, including Intelligence, Surveillance, and Reconnaissance (ISR) platforms and loitering munitions, Bharat Forge Ltd. said.
- The drone platforms -- **Omega One, Omega Nine, Bayonet, and Cleaver** -- are developed for India to meet urgent operational requirements across diverse terrains and mission profiles, it added.
- "This dual achievement, securing EP-VI contracts and showcasing Omega One on Army Day, reaffirms BFL's commitment to Atmanirbhar Bharat," said Amit Kalyani, Vice Chairman and Joint Managing Director at Bharat Forge Ltd.
- The programmes leverage a surge in domestic production capacity to ensure rapid delivery timelines while upholding quality, reliability, and scalability, the company said.

Indian Navy and BEL Develop Indigenous Software Enabling Surface Vessel

- The Indian Navy's Weapons and Electrical Engineering Systems Establishment, in a joint effort with BEL, has developed an indigenous software that enables the operation of unmanned surface vessels.

- The software, called Advanced Autonomous Navigation & Control Software(A2NCS), allows the Navy to conduct autonomous operations at sea using Unmanned Surface Vessels.
- According to a post by Bharat Electronics on the microblogging platform X, the software has been integrated into a Fast Interceptor Boat of the Indian Navy, which has already been deployed for mine countermeasure missions and combat exercises.
- A2NCS enables fully autonomous, unmanned operations of the Navy's Fast Interceptor Boat and supports three distinct modes of operation.
- The A2NCS-powered Fast Interceptor Boat has already been deployed by the Indian Navy for mine countermeasure missions and combat exercises, strengthening indigenous defence capabilities and supporting the "Atma Nirbhar Bharat" initiative of Bharat Electronics and the Indian Navy.

DOSTI Exercise 2026

- The **17th edition** of the DOSTI exercise, a key trilateral maritime drill involving the Indian Coast Guard, Sri Lankan Coast Guard, and Maldives National Defence Force (MNDF), has commenced in Male, Maldives.
- This longstanding platform for regional cooperation kicked off with its harbour phase on 17 January 2026, underscoring renewed commitments to maritime security amid evolving regional dynamics.

- The Indian Coast Guard announced the exercise's start via a post on X, highlighting collaborative MARPOL exercises—focused on marine pollution response—and joint Visit, Board, Search, and Seizure (VBSS) drills. These activities aim to enhance interoperability and build camaraderie among the participating forces.
- A four-member delegation from the Indian Coast Guard, led by Director General Paramesh Sivamani, arrived in the Maldives specifically for DOSTI 17. Their presence signals India's proactive role in bolstering ties with neighbours, aligning with the 'SAGAR' (Security and Growth for All in the Region) vision and the neighbourhood-first policy.

Indian Army's iDEX Firefighting Robot Deal

- Indian Army marked a significant milestone by signing a landmark contract under the Innovations for Defence Excellence (iDEX) initiative with Ahmedabad-based Swadeshi Empresa Pvt Ltd.
- This agreement paves the way for the procurement of an indigenous Fire Fighting Robot, originally developed for the Indian Navy. The signing took place at the Capability Development Directorate in New Delhi, underscoring a pioneering step in inter-service technology adoption.
- The Fire Fighting Robot represents a cutting-edge unmanned vehicle designed to tackle blazes in high-risk zones where human intervention poses extreme dangers. Capable of operating autonomously, it deploys advanced sensors and suppression systems to extinguish fires efficiently while minimising exposure to toxic fumes, intense heat, and structural collapses.

- Swadeshi Empresa Pvt Ltd, a rising star in Gujarat's defence innovation ecosystem, refined the technology through rigorous naval trials before scaling it for broader military use.

Centre to Soon Launch 'Coastal Vibrant Villages' Programme

- The Union government is expected to soon roll out a "coastal vibrant villages" programme to engage with the local communities living along India's nearly 6,500-km long coastline.
- This will be on the lines of the Vibrant Villages Programme (VVP) launched by the Centre for the people living in villages along India's land borders in the north, apart from other areas.
- CISF Director General (DG) Praveer Ranjan informed reporters about this during a press conference held here to announce the second edition of their coastal cyclothon from January 28.
- "The government is soon expected to come out with a coastal vibrant villages programme like the one being implemented for our land borders. The CISF will also adopt 52 coastal villages as part of this initiative," Ranjan said.
- India has more than 230 seaports, out of which 78 are categorised as "exim ports" for import and export of goods. At present, the force guards 12 major seaports and one minor port.

- Ranjan said the RSO designation will allow the force to do all the planning and assessment for seaports, train private security staff, even as a Bureau of Port Security (BOPS) will be created by the Union government in the near future.
- "We are creating a new vertical for port security in CISF for which we will require about 10,000-12,000 more personnel. We hope to get the government's sanction for raising this strength soon," Ranjan said.

India and the UAE Strategic Defence Partnership

- India and the UAE signed a Letter of Intent (LoI) to conclude a Strategic Defence Partnership, signalling a deeper strategic alignment amid heightened geopolitical churn in West Asia and the Persian Gulf.
- India and the UAE agreed to double bilateral trade to $200 billion by 2032. Several agreements were signed during talks between Narendra Modi and Sheikh Mohamed bin Zayed Al Nahyan in New Delhi.
- The decision to double bilateral trade to $200 billion by 2032 highlights the growing economic interdependence between India and the UAE.
- The UAE is one of India’s largest trading partners and a key gateway to West Asia and Africa.
- This ambitious target builds on the momentum created by recent trade facilitation measures and investment flows.

- Both countries aim to diversify trade beyond traditional sectors by strengthening cooperation in manufacturing, energy, logistics, technology and services, ensuring long-term and resilient economic growth.
- India and the UAE signed a letter of intent to conclude a framework agreement on a strategic defense partnership.
- This reflects rising trust and shared security interests. Another letter of intent focuses on joint initiatives in space infrastructure development and its commercialization.

Military Quantum Mission Policy Framework

- Chief of Defence Staff General Anil Chauhan on Thursday released a comprehensive document for the integration of the four pillars of quantum technologies into the tri-services to prepare them for a future battlefield and to achieve technological dominance in a rapidly evolving world.
- The '**Military Quantum Mission Policy Framework**' includes the policy and the roadmap to implement quantum technologies in the armed forces.
- The vision document defines the way ahead to achieve synergy in the amalgamation of quantum technologies, alignment with the National Quantum Mission, of which the defence forces are an integral part, and formulates an indicative roadmap and policy for implementation of this niche field in the defence forces.
- The document underscores the increasing need for the assimilation of these niche technologies from a defence perspective and highlights the milestones and goals to be achieved by utilising civil-military fusion through dedicated governing bodies consisting of members across multiple government sectors.

- The framework also highlights the critical need for jointness and integration in assimilating this technology to achieve technological supremacy in the future battlefield, it said.

Black Shark Deal Bolsters Navy's Submarine Edge

- Italian defence firm Whitehead Alenia Sistemi Subacquei (WASS) has hailed its recent contract to supply 48 Black Shark Advanced (BSA) heavyweight torpedoes to the Indian Navy as a transformative boost to underwater combat prowess.
- The agreement, inked under the Buy Global category, targets integration across all six Kalvari-class submarines—India's first indigenously built Scorpene platforms under Project 75.
- Developed in tandem with the Italian Navy to address cutting-edge operational demands, the BSA leverages state-of-the-art propulsion, guidance, and countermeasure resistance, ensuring lethality in contested underwater domains.
- Already operational with seven navies worldwide and under scrutiny by four others, the torpedo seamlessly adapts to diverse platforms including U-boat class, Scorpene, Västergötland, Kilo, and midget submarines.
- The ₹1,896 crore deal, finalised on 30 December 2025 between the Ministry of Defence and WASS, includes associated equipment for full integration, with deliveries slated to commence in April 2028 and conclude by early 2030.
- With Kalvari submarines forming the vanguard of India's SSK fleet, the BSA infusion will sharpen asymmetric warfare edges, vital against peer adversaries equipped with advanced anti-submarine warfare suites. Critically, the torpedo's

modularity promises scalability to future platforms like Project 75I conventional subs or even nuclear-powered SSNs under gestation, ensuring long-term fleet interoperability.

Solar Group Develops 125kg Air bomb

- In a major technological leap for India's defence manufacturing sector, Solar Defence and Aerospace Limited, based in Nagpur, has unveiled the world's first universal 125-kg air bomb. This innovative weapon system represents a technological leap, designed to integrate seamlessly with both NATO-standard Western fighter aircraft and Russian-origin platforms.
- The development addresses a persistent challenge for air forces operating mixed fleets, such as the IAF. Historically, separate bomb variants were required for different aircraft due to variations in suspension lugs, release mechanisms, and avionics interfaces. This led to duplicated inventories, escalating costs in production, storage, logistics, and maintenance.
- Solar's universal bomb overcomes these hurdles through an adaptive suspension and interface architecture. It ensures compatibility without necessitating aircraft-specific modifications, a feat rare in the global defence industry. The bomb's design allows a single variant to deliver identical destructive capability across diverse platforms.
- Integration with the IAF's frontline Sukhoi-30MKI fleet—Russia's premier multirole fighter—is now in advanced stages. Critical evaluations, including

adaptation and pit-drop trials, are progressing swiftly. Officials anticipate completion soon, enabling broader deployment.

Colonel Sofiya Qureshi Awarded Vishisht Seva Medal

- In a significant ceremony commemorating India's 77th Republic Day, Colonel Sofiya Qureshi of the Indian Army's Corps of Signals was honored with the Vishisht Seva Medal, acknowledging her exemplary service and leadership in counter-terrorism operations.
- This prestigious award highlights her vital contributions during Operation Sindoor, a strategic initiative launched in 2025 aimed at neutralizing threats posed by Pakistan along border regions.
- Colonel Qureshi, an officer with over 20 years of experience in field operations and strategic communications, served as the chief spokesperson for the armed forces during this crucial operation.
- The Vishisht Seva Medal, which recognizes exceptional dedication to duty and distinguished service during peacetime, underscores Colonel Qureshi's unwavering commitment to national defense. In her role, she not only ensured effective collaboration between various military units but also played a crucial part in public engagement, bolstering public confidence amid geopolitical tensions.
- The award has garnered widespread praise from both defense circles and the general public. Senior officials within the Indian Army have commended her as a paragon of professionalism and bravery, particularly as women officers continue to break barriers in frontline roles. Media narratives surrounding the event have underscored her remarkable journey from field postings in remote regions to a significant role in high-stakes operations, serving as an inspiration to aspiring military personnel.

India, EU Sign New Security & Defence Partnership

- India and EU have signed a new pact for security and defence partnership that will pave the way for cooperation in the maritime domain, increased engagements in the Indo-Pacific and lead to stronger engagement by the Indian defence industry in the European market.
- The two sides have also decided to set up an industry-led India-EU Defence Industry Forum, with official participation as observers and associating EU member states.
- The forum will drive industrial partnership and explore opportunities in both markets. A dedicated annual EU-India Security and Defence Dialogue has also been announced.
- Following the pact, defence minister Rajnath Singh said the Indian defence industry can play a meaningful role in the EU's 'ReArm initiative', at a time when it is looking to diversify suppliers and de-risk dependencies.

Mother of Deal Signed 16th Summit

- India and Europe have concluded the "**mother of all**" trade deals, European Commission President Ursula von der Leyen said on Tuesday as Prime Minister Narendra Modi and the top EU leadership held summit talks to elevate the two-way ties to jointly navigate geopolitical turbulence and trade disruptions. Prime Minister Modi hosted von der Leyen and European Council President Antonio Costa at the summit.
- The long-awaited free trade agreement is expected to significantly expand the overall trajectory of two-way engagement, as it will open up new opportunities for cooperation in diverse areas.
- The FTA is expected to bring a qualitative change in deepening the overall bilateral ties in a range of sectors. The broad focus of today's meeting is on trade, defence and security, climate change, critical technologies and strengthening the rules-based global order. The two sides are also set to unveil a defence framework pact and a strategic agenda. The new partnership comes at a time when Europe is seeking to reduce its dependence on the US and China and deepen its diplomatic and economic ties to other regions.
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- The Confederation of All India Traders (CAIT) has welcomed the landmark India-European Union Free Trade Agreement (FTA), calling it a historic breakthrough that could reshape India's trade landscape.
- India is expected to gradually increase its market share from 5 per cent to 8-9 per cent in the EU's ready-made garment (RMG) imports, unlocking an incremental annual export opportunity of nearly $4-4.5 billion over the medium term.
- The European Union (EU) is the world's largest RMG market, with imports of nearly **$84 billion** (excluding trade among EU countries) in 2024, according to the report by CareEdge Ratings.
- India currently exports **$4.5-5 billion** of RMG to the EU, holding 5 per cent share of the EU's RMG market. Unlike India, key competitors such as Bangladesh, Turkey, Vietnam, Pakistan, and Cambodia enjoy duty-free access.

Adani And Embraer Signs Strategic Partnership

- Adani Defence and Aerospace has entered into a memorandum of understanding (MoU) with Brazil's Embraer to establish a regional transport aircraft manufacturing ecosystem in India.
- This collaboration marks a pivotal step for India's aviation sector, enabling the assembly of Embraer's regional jets locally for the first time.
- Embraer, the world's third-largest aircraft manufacturer after Boeing and Airbus, brings its expertise in producing commercial jets with up to 150 seats. The partnership leverages Adani's expanding aviation infrastructure and defence capabilities alongside Embraer's engineering prowess.
- Under the agreement, the companies plan to set up a final assembly line (FAL) in India, with potential sites currently under evaluation. Details on investment, precise location, and operational timelines remain undisclosed, though announcements are expected soon.
- Adani Group's broader aviation push includes its management of several Indian airports and a ₹6 lakh crore investment across aviation, infrastructure, and green energy. This MoU represents Adani's entry into commercial aircraft production, complementing its defence and aerospace ventures.
- This development follows initial reports of discussions last month, with formal signing confirmed on 27 January 2026. It positions India to compete in the global regional jet market while advancing self-reliance in strategic technologies.

Ashok Chakra for Group Captain Shubhanshu Shukla

- Droupadi Murmu has approved gallantry awards for 70 Armed Forces personnel, including the **Ashok Chakra** for Shubhanshu Shukla, along with several other gallantry and distinguished service medals.
- Group Captain Shubhanshu Shukla has been awarded the Ashok Chakra, India's highest peacetime gallantry award.
- He made history by becoming the first Indian to visit the International Space Station, marking a milestone in India's aerospace and defence-linked achievements.
- The award recognises exceptional courage, leadership, and contribution beyond the call of duty.
- India's gallantry awards system honours acts of bravery in both wartime and peacetime.
- The Ashok Chakra, Kirti Chakra, and Shaurya Chakra are peacetime gallantry awards, while medals such as the Param Vir Chakra are awarded during war.

REVIEW QUESTIONS

1. **The ramjet-powered 155 mm artillery shell being developed for the Indian Army aims to primarily enhance which capability?**

A. Rate of fire
B. Shell payload capacity
C. Firing range without loss of lethality
D. Barrel life of artillery guns

ANSWER: C

2. **The development of the ramjet-assisted 155 mm artillery shell is being carried out in collaboration with which institution?**

A. IIT Kanpur
B. DRDO
C. IIT Madras
D. BHEL

ANSWER: C

3. **Who assumed charge as Air Officer Commanding-in-Chief of the IAF Training Command on January 1?**

A. Air Marshal Nagesh Kapoor
B. Air Marshal Narmdeshwar Tiwari
C. Air Marshal S. Shrinivas
D. Air Vice Marshal Rakesh Aggarwal

ANSWER: C

4. **Air Marshal Nagesh Kapoor was appointed as which senior officer of the Indian Air Force?**

A. Chief of Air Staff
B. Deputy Chief of Air Staff
C. Vice Chief of the Air Staff
D. Air Officer Commanding-in-Chief

ANSWER: C

5. **When was the Shimla Agreement signed?**

A. 26 January 1972
B. 2 July 1972
C. 15 August 1972
D. 1 January 1973

ANSWER: B

6. **Samudra Pratap, recently commissioned into the ICG, is primarily designed for which role?**

A. Anti-submarine warfare
B. Amphibious assault operations
C. Marine pollution control and maritime law enforcement
D. Ballistic missile defence

ANSWER: C

7. **The maiden flight of LCA TEJAS took place in which year?**

A. 1998
B. 2000
C. 2001
D. 2003

ANSWER: C

8. **Which city will host the Army Day Parade for the first time in 2026?**

A. Pune
B. Lucknow
C. Bengaluru
D. Jaipur

ANSWER: D

9. The Arihant-class submarine S4 is likely to be commissioned as:*

A. INS Arighaat
B. INS Aridhaman
C. INS Arisudan
D. INS Anant

ANSWER: C

10. What is the primary objective of creating a joint Counter Unmanned Aerial System (CUAS) grid?

A. To replace existing air defence systems
B. To counter enemy missile attacks
C. To foil enemy drone attacks
D. To control civilian air traffic

ANSWER: C

11. The joint CUAS grid will function separately from which existing air defence network of the Indian Air Force?

A. Akash Missile Network
B. Integrated Air Command and Control Systems (IACCS)
C. National Air Defence Grid
D. Ballistic Missile Defence System

ANSWER: B

12. The primary role of the Shaktibaan Regiments being raised by the Indian Army is to:

A. Operate nuclear-capable ballistic missiles
B. Conduct armoured warfare operations
C. Carry out unmanned and drone-based combat missions
D. Provide air defence cover to infantry units

ANSWER: C

13. Which of the following weapon systems is already used by the Indian Army for long-range strikes beyond 400 km?

A. Pralay missile
B. BrahMos cruise missile
C. Akash surface-to-air missile
D. Nagastra loitering munition

ANSWER: B

14. The JF-17 Thunder fighter jets discussed in Pakistan–Saudi Arabia talks are jointly developed by Pakistan and which country?

A. Russia
B. Turkey
C. China
D. United States

ANSWER: C

15. The National IED Data Management System (NIDMS) launched by Amit Shah will primarily be used by which of the following agencies?

A. Only Central Armed Police Forces
B. National Investigation Agency, ATS, State Police and CAPFs
C. Indian Armed Forces only
D. Intelligence Bureau only

ANSWER: B

16. DRDO recently achieved a major milestone by successfully testing which technology for hypersonic missile development?

A. Ramjet propulsion system
B. Solid rocket booster
C. Actively cooled scramjet combustor
D. Liquid-fuel ballistic engine

ANSWER: C

17. PARAM SHAKTI, recently inaugurated at IIT Madras, is best described as:

A. An AI-based missile guidance system
B. A satellite launch vehicle
C. An indigenous supercomputing facility
D. A cyber security command centre

ANSWER: C

18. The recently tested Man-Portable Anti-Tank Guided Missile (MPATGM) developed by DRDO is best described as:

A. A first-generation wire-guided missile
B. A third-generation “fire-and-forget” missile with top-attack capability
C. A long-range surface-to-air missile
D. A cruise missile for naval warfare

ANSWER: B

19. The Indian Navy's sailing vessel Kaundinya is unique because it:

A. Uses nuclear propulsion
B. Is India's first steel-hulled warship
C. Has no engine and is built using an ancient stitching technique
D. Is the fastest naval ship in the Indian Ocean

ANSWER: C

20. Approximately what percentage of the proposed 114 Rafale fighter jets are planned to be built in India?

A. 50%
B. 60%
C. 70%
D. 80%

ANSWER: D

21. Who has been appointed as the new Director General (DG) of the Indo-Tibetan Border Police (ITBP)?

A. Praveen Kumar
B. Shatrujeet Singh Kapoor
C. Toshimitsu Motegi
D. Theresa Lazaro

ANSWER: B

22. Bharat Forge recently secured defence contracts worth approximately ₹300 crore for supplying which of the following systems?

A. Main battle tanks
B. Fighter jet components
C. Indigenous unmanned drone platforms
D. Naval missile destroyers

ANSWER: C

23. The newly raised Bhairav light commando battalion will make its first appearance during which national event?

A. Independence Day Parade
B. Army Day Parade
C. Republic Day Parade
D. Beating Retreat Ceremony

ANSWER: C

24.The Sagar Maitri initiative of the Indian Navy and DRDO is aligned with which broader national vision?

A. SAGAR
B. MAHASAGAR
C. Atmanirbhar Bharat
D. Act East Policy

ANSWER: B

25. The indigenous software A2NCS developed by the Indian Navy and BEL is primarily meant for:

A. Missile guidance systems
B. Submarine navigation
C. Autonomous operation of unmanned surface vessels
D. Aircraft carrier combat management

ANSWER: C

26. Exercise DOSTI 2026 is a trilateral maritime exercise involving India, Sri Lanka and which other country?

A. Bangladesh
B. Myanmar
C. Maldives
D. Thailand

ANSWER: C

27. The proposed 'Coastal Vibrant Villages' Programme is primarily aimed at:

A. Developing tourism infrastructure along beaches
B. Strengthening engagement with coastal communities
C. Modernising shipbuilding yards
D. Expanding naval bases

ANSWER: B

28. By which year have India and the UAE set a target to double their bilateral trade to USD 200 billion?

A. 2028
B. 2030

C. 2032
D. 2035
ANSWER: C

29. Why was the participation of women Agniveer in the 77th Republic Day Parade significant?
A. They led the Indian Air Force marching contingent
B. They piloted fighter aircraft during the flypast
C. They became the first women Agniveer to be part of the IAF band
D. They commanded the ceremonial parade
ANSWER: C

30.Colonel Sofiya Qureshi was awarded the Vishisht Seva Medal primarily for her role as:
A. Commander of an armoured brigade
B. Chief spokesperson during Operation Sindoor
C. Head of military intelligence
D. Leader of a UN peacekeeping mission
ANSWER: B