

CT365

CURRENT TRENDS 365

One-Stop Solution for Annual Prelims Current Affairs
Comprehensive Coverage of All Standard Sources with Proof

Covers:

- • The Hindu ✓
- • PIB INDIA ✓
- • Indian Express ✓
- • Down to Earth ✓
- • Insights Monthly ✓
- • PT365 ✓
- • The Scientist ✓
- • Drishti Monthly ✓
- • Vision Monthly ✓



DEFENCE

PRELIMS 2026



COVERAGE JUNE 2025 TO FEB2026

This file has month wise CA in compiled format.

All memory tricks , static value addition is done by expert faculty ANKITA MAAM in classes on youtube. DO NOT MISS THEM .

CLICK TO WATCH NOW





TOPICS COVERED-

- **SIPRI Yearbook 2025 – India’s Nuclear Arsenal** – India: 180 warheads, mature nuclear triad, modernization ongoing; China: 600 warheads; global nuclear stockpile ~12,241; escalation risks include AI, cyber, and regional tensions.
- **Financial Action Task Force (FATF)** – Intergovernmental body (1989), HQ Paris; combats money laundering & terror financing; issues 40 recommendations; grey/black lists influence FDI; India member since 2010.
- **UNSC Taliban Sanctions Committee (1988) & 1373 Counter-Terrorism Committee (CTC)** – Monitor Taliban sanctions, prevent terror financing; Pakistan chairs TSC 2025–26; CTC enforces legal frameworks and capacity building.
- **Operation Deep Manifest – DRI** – Intercepts banned Pakistani goods via false UAE labelling; protects economic security; exposes fund flows and third-country smuggling networks.
- **Women in Indian Armed Forces** – Historic 17 NDA cadet graduates (2025); permanent commissions, combat roles in IAF, Navy; challenges: infrastructure, bias, physical standards; ~4% representation.
- **Empowering India’s Defence Sector – 2025** – Indigenous tech: BrahMos, iDEX, ADITI, Defence Industrial Corridors, UAVs, AI, quantum communication; indigenisation at 65%; strategic autonomy enhanced.
- **Terrorism & India’s Security Landscape – 2025** – Cross-border terrorism (Pakistan), cyber-terrorism, Naxalism, NE insurgency; counter-terror agencies (NIA, NSG, CAPFs, RAW); legislative tools: UAPA 1967, NSA 1980; AI & drones for surveillance.
- **Fifth-Generation Fighter Jet – AMCA** – Indigenous Advanced Medium Combat Aircraft; stealth, supercruise, networked warfare; prototype 2028-29, induction 2034-35; counters regional threats; public-private participation.
- **Silver Notice – INTERPOL** – International asset tracking notice; India requests first for Shubham Shokeen (2025); 51-country pilot; INTERPOL: HQ Lyon, 196 members; supports global fugitive asset monitoring.
- **Rudrastra UAV – Pokhran Trial** – Hybrid VTOL UAV; 170 km range, 1.5-hour endurance; precision strike & real-time surveillance; autonomous return; manufactured by SDAL, India.
- **Exercise Khaan Quest – Multinational Military Exercise** – Held in Mongolia; prepares for UN peacekeeping missions under Chapter VII; India participates; enhances interoperability and military diplomacy.

INTERNAL SECURITY & DEFENCE

SOURCE- INSIGHTS

SIPRI Yearbook 2025

Recent Context: SIPRI Yearbook 2025 reports India has 180 nuclear warheads, surpassing Pakistan but far behind China, amid an emerging global nuclear arms race and weakening arms control regimes.

About SIPRI Yearbook 2025:

1. **India's Nuclear Arsenal:** 180 warheads as of January 2025, with modernization of canisterised missiles and a mature nuclear triad (land, air, sea).
2. **Strategic Shift:** India may move toward mating warheads with launchers in peacetime, altering its traditional de-alerted posture.
3. **Pakistan's Capability:** Estimated 170 warheads, expanding fissile material production, focusing on short-range tactical weapons to deter India.
4. **China's Arsenal:** 600 warheads, growing ~100/year, with ~350 new ICBM silos and possible peacetime missile readiness.
5. **Global Trends:** Total ~12,241 warheads worldwide (~9,614 deployed), with Russia and the USA holding over 90%; modernization ongoing across all 9 nuclear states.
6. **Escalation Risks:** Regional tensions, AI/cyber/space technologies, misinformation, and compressed decision-making increase nuclear conflict likelihood.
7. **Policy Implications for India:** Maintain credible minimum deterrence, modernize responsibly, pursue arms control dialogue, enhance indigenous capabilities, and actively engage in nonproliferation efforts.

Financial Action Task Force (FATF)

Recent Context: After the April 2025 Pahalgam terror attack, FATF condemned the incident and announced intensified monitoring of countries' counter-terror financing measures.

About FATF :

1. **Nature & Establishment:** Intergovernmental policy-making body established in 1989 at the

G7 Paris Summit; mandate expanded in 2001 to include terrorism financing.

2. **Headquarters:** Paris, France; India became a full member in 2010.
3. **Primary Objectives:** Develop global AML/CFT standards, evaluate member compliance, assist nations in anti-financial crime frameworks, coordinate international counter-terror finance efforts.
4. **Key Functions:**
 - Issue 40 FATF Recommendations for AML/CFT compliance.
 - Conduct mutual evaluations of national frameworks.
 - Identify high-risk jurisdictions (grey/black lists).
 - Raise awareness on emerging threats like crypto misuse and digital laundering.



5. **Grey List:** Countries with strategic deficiencies in AML/CFT frameworks; affects FDI, financial ratings, and lending access.
6. **Blacklist:** Non-cooperative countries in curbing terror financing, e.g., North Korea, Iran, Myanmar.
7. **Significance:** Enhances international cooperation, deters terror state sponsorship, strengthens domestic legal and institutional responses; India engages actively via Asia Pacific Group (APG) and Eurasian Group (EAG).

Taliban Sanctions Committee (1988) & 1373 Counter-Terrorism Committee (CTC)

Recent Context -:

Pakistan appointed Chair of 1988 Taliban Sanctions Committee and Vice-Chair of 1373 Counter-Terrorism

Committee during its 2025–26 UNSC non-permanent membership, highlighting its role in global counter-terrorism efforts.

About :

1. **1988 TSC:** UNSC subsidiary body monitoring sanctions on Taliban-linked individuals/entities; established 2011 via Resolution 1988.
2. **Objective (TSC):** Ensure compliance with travel bans, arms embargoes, and asset freezes in Afghanistan.
3. **List-based regime:** Covers ~130 individuals/entities; decisions taken by consensus.
4. **1373 CTC:** Created 2001 post-9/11 under Chapter VII to strengthen global counter-terrorism legal frameworks.
5. **Objective (CTC):** Compel states to criminalize terrorism, prevent financing, and deny safe havens to terrorists.
6. **Functions:** TSC monitors sanctions; CTC promotes capacity building, legal reforms, and international cooperation.
7. **Enforcement & Operations:** TSC relies on member cooperation; CTC works with CTED and operates under consensus, avoiding politicization.

Operation Deep Manifest

Recent Context -:

DRI seized Pakistani-origin goods worth ₹9 crore under Operation Deep Manifest, exposing illicit trade via false UAE labelling and strengthening enforcement against economic infiltration from hostile states.

About :

1. **What it is:** Targeted enforcement operation by Directorate of Revenue Intelligence (DRI) to disrupt smuggling of banned Pakistani goods into India.
2. **Launched by:** DRI under CBIC, Ministry of Finance.
3. **Objective:** Enforce import ban on Pakistani goods; prevent economic infiltration via third-country transshipment.

4. **Key Features:** Container surveillance intercepted 39 containers carrying 1,115 tonnes of goods falsely labelled as UAE-origin.
5. **Document Forensics:** Traced shipping records, false declarations, container swaps, and dual-port routing via Dubai (Jebel Ali).
6. **Financial Intelligence:** Exposed fund flow links to Pakistani entities and UAE collaborators.
7. **Significance:** Protects national economic security, reinforces zero-tolerance policy, and deters third-country rerouting of banned goods.

SOURCE- DRISTHI MONTHLY

Women in Indian Armed Forces

Recent Context -:

For the first time, **17 women cadets graduated from the NDA in 2025, marking a historic step toward gender-inclusive military leadership and opening pathways for future women service chiefs.**

About :

1. **Early Entry:** Women joined through Military Nursing Service (1888) and Indian Army Medical Corps (1958) with regular commissions.
2. **Non-Medical Roles:** Introduced in 1992 under Women Special Entry Scheme (WSES) in select non-combat branches.
3. **Permanent Commission:** Granted in limited branches in 2008; Supreme Court mandated PC in all eligible arms in 2020.
4. **Combat Roles:** IAF allowed women fighter pilots from 2016; all branches of Navy opened since 2022; women now in NDA since 2022.
5. **Current Strength:** Women constitute ~4% of Army, serve across Army, Navy, and Air Force in various roles including operations and leadership.
6. **Notable Achievements:** Women officers led key operations (e.g., Operation Sindoor) and maritime expeditions, proving leadership and endurance.
7. **Challenges:** Include physical demands, societal bias, limited combat opportunities,

work-life balance, psychological pressures, and infrastructure inadequacies.

Empowering India's Defence Sector – 2025

Recent Context (30 words):

India is advancing **defence technology** under **Aatmanirbhar Bharat**, leveraging **AI, robotics, cyber warfare, UAVs, and quantum technologies**, while addressing challenges of **foreign dependency** and slow **private sector integration**.

7 UPSC Prelims Points:

1. **Operation Sindoor:** Precision strikes using **Rafale** and **Tejas** aircraft integrated with **C4ISR** and **EW systems**.
2. **BrahMos Missile:** Indigenous **supersonic cruise missile**, exported to **Indonesia**, demonstrating **strategic defence partnerships**.
3. **iDEX & ADITI Scheme:** Supports **indigenous R&D** and development of **critical defence technologies** through startups and academia-industry collaboration.
4. **Defence Industrial Corridors (DICs):** Established in **Uttar Pradesh** and **Tamil Nadu**, attracting **investments** and boosting **indigenous defence production**.
5. **Quantum Technologies:** DRDO's **Quantum Technologies Research Centre (QTRC)** focuses on **secure quantum communication**; free-space demonstration at **IIT Delhi** >1 km.
6. **Indigenisation Efforts:** **Positive Indigenisation Lists** have increased domestic production to **65% of defence equipment**, contributing ₹1.27 lakh crore in FY 2023-24.
7. **Advanced Manufacturing:** Use of **AI, autonomous systems, UAVs (NETRA), ROVs (Daksh)**, and **3D printing** revolutionizes **defence production** and operational efficiency.

Terrorism and India's Security Landscape –2025

Recent Context :

The **Pahalgam attack** highlights persistent **terrorism threats** in **Kashmir**, emphasizing the need for strengthened **intelligence, technology-enabled**

surveillance, counter-radicalization, and enhanced **global counter-terror cooperation**.

7 UPSC Prelims Points:

1. **Cross-Border Terrorism:** Militants infiltrate from **Pakistan**, supported by intelligence agencies; notable attacks include **Pulwama 2019** and **Pahalgam 2025** targeting civilians.
2. **Cyber Terrorism:** Terrorists use **internet platforms** like **Telegram** for propaganda, recruitment, and attacks; India was the **2nd most targeted nation** in 2024.
3. **Left-Wing Extremism (Naxalism):** Active in **central and eastern India**, using **guerilla tactics**; impacts governance and rural development.
4. **Insurgency in Northeastern States:** Conflicts in **Manipur, Nagaland** exploit **porous borders** with **Myanmar** and external arms supply, complicating counter-terror efforts.
5. **Counter-Terrorism Agencies:** **NIA, NSG, CAPFs** (CRPF, BSF, ITBP, SSB), **R&AW, NatGrid** coordinate to handle cross-border, internal, and cyber threats.
6. **Legislative Framework:** **UAPA 1967** and **NSA 1980** provide legal tools for preventive detention, asset freezing, and prosecuting terrorism.
7. **Enhancement Measures:** Adopt **AI surveillance, smart fencing, drones, community engagement, cybersecurity infrastructure**, and **public awareness** to strengthen counter-terrorism.

SOURCE- VISION MONTHLY

Fifth-Generation Fighter Jet – AMCA

Recent Context -:

India approved the execution model for the indigenous **Advanced Medium Combat Aircraft (AMCA)**, aiming for **prototype by 2028-29** and **induction by 2034-35** to strengthen IAF modernization and defence autonomy.

About :

1. **Background:** Approved by Cabinet Committee on Security (CCS) in 2024; led by Aeronautical Development Agency (ADA) under DRDO.
2. **Variants:** AMCA Mk1 with GE-F414 engines; Mk2 planned with fully indigenous engines.



3. **Timeline:** Prototype expected by 2028-29; induction targeted by 2034-35.
4. **Fifth-Generation Features:** Stealth, supercruise, advanced avionics, twin-engine, agile airframes, integrated computer systems, and networked warfare capabilities.
5. **Industry Participation:** Both private and public sector Indian companies can bid; HAL not exclusive; encourages Make in India.
6. **Strategic Importance:** Fills IAF capability gaps, counters regional threats like China's J-20 and Pakistan's J-10C, strengthens technological sovereignty.
7. **Global Context:** Only US, Russia, and China have operational 5th-generation jets; 6th-generation fighters under development globally with AI, hypersonic, and unmanned capabilities.

Silver Notice – INTERPOL

Recent Context -:

INTERPOL issued its first Silver Notice at India's request to track global assets of Shubham Shokeen, wanted for visa fraud, under the pilot project involving 51 participating countries.

About :

1. **Definition:** Silver Notice is part of INTERPOL's colour-coded notices, aimed at tracing and

gathering information on assets of fugitives or key accused internationally.

2. **Purpose:** Enables tracking of fugitives' assets across borders, even if located in foreign countries.
3. **Pilot Project:** India is among 51 countries participating; pilot runs until at least November 2025; each country can request up to 9 Silver Notices.
4. **First Use:** January 2025, issued on behalf of Italy; India's first request targets Shubham Shokeen.
5. **INTERPOL Overview:** Established as ICPC in 1923, renamed INTERPOL in 1956; headquarters in Lyon, France; 196 member countries.
6. **India's Role:** Founding member; CBI serves as India's National Central Bureau (NCB); Bharatpol portal enhances coordination.
7. **Governing Structure:** General Assembly and Executive Committee oversee policies and operations of INTERPOL globally.

Successful Trial of Rudrastra UAV at Pokhran, Rajasthan

Recent Context -:

Hybrid UAV Rudrastra successfully demonstrated vertical takeoff/landing, real-time surveillance, and precision strike over 50 km at Pokhran, showcasing India's indigenous UAV capabilities and defence technology advancements.

About Rudrastra :

1. **Type:** Hybrid Vertical Take-Off and Landing (VTOL) Unmanned Aerial Vehicle (UAV).



2. **Manufacturer:** Solar Defence and Aerospace Limited (SDAL), India.
3. **Flight Range & Endurance:** Total range 170 km, endurance approximately 1.5 hours, including loitering over target.
4. **Combat Capability:** Equipped with precision-guided anti-personnel warheads, capable of mid-altitude release.
5. **VTOL Feature:** Can take off and land vertically, enabling flexible deployment from constrained areas.
6. **Surveillance:** Provides real-time video relay for target monitoring and reconnaissance.
7. **Autonomous Operation:** Can return to launch position in automated mode after mission completion.

Exercise Khaan Quest

Recent Context -:

Indian Army contingent reached Ulaanbaatar, Mongolia to participate in the 22nd Multinational Exercise Khaan Quest, enhancing preparedness for UN peacekeeping missions and multinational military cooperation.

About Exercise Khaan Quest:

1. **Genesis:** Bilateral initiative between the United States and Mongolia in 2003; first multilateral exercise held in 2006.
2. **Objective:** Prepares participating forces for UN peacekeeping missions under Chapter VII of the UN Charter.
3. **Chapter VII:** Deals with action concerning threats to peace, breaches of peace, and acts of aggression.
4. **Participants:** Multinational, including India, the US, Mongolia, and several other countries.
5. **Activities:** Includes tactical drills, humanitarian operations, and joint military maneuvers.
6. **Significance for India:** Enhances interoperability, global peacekeeping readiness, and military diplomacy.
7. **Frequency:** Annual exercise, promoting sustained military collaboration in the Asia-Pacific region.



TOPICS COVERED-

- **India's Defence Spending & Regional Ambitions** – Expanding military capabilities to secure borders and assert regional influence.
- **INS Nistar** – India's first indigenous Diving Support Vessel for submarine rescue and undersea operations.
- **Quantum Cyber Readiness** – Initiative to counter quantum computing threats with post-quantum cryptography.
- **Operation Mahadev** – Joint counter-terror mission targeting foreign militants in Kashmir.
- **Operation Med Max** – Transnational anti-drug operation dismantling digital-era syndicates.
- **Project 17A / INS Udaygiri** – Multi-role stealth frigate strengthening India's blue-water naval power.
- **Extended Range Anti-Submarine Rocket (ERASR)** – Indigenous rocket enhancing naval anti-submarine warfare.
- **Astra Missile** – Indigenous beyond-visual-range air-to-air missile for air combat superiority.
- **Pralay Missile** – Short-range quasi-ballistic missile for tactical strike and deterrence.
- **Exercise Bold Kurukshetra 2025** – India–Singapore joint exercise validating mechanised warfare operations.
- **Bharat NCX 2025** – National cybersecurity exercise simulating AI-enabled cyberattacks for resilience.
- **SIMBEX Exercise** – Annual India–Singapore maritime exercise enhancing naval cooperation.
- **Exercise Talisman Sabre 2025** – Multinational Indo-Pacific exercise boosting interoperability and combat readiness.
- **Jaa Mata Exercise** – India–Japan coast guard exercise improving maritime operational interoperability.
- **Sanchar Mitra Scheme** – Volunteer-driven initiative promoting digital literacy and cyber hygiene.
- **Operation SHIVA 2025** – High-altitude mission ensuring safe Shri Amarnath Yatra.
- **Operation ShivShakti** – Counter-infiltration operation neutralising terrorists along the LoC.
- **MiG-21 Retirement** – IAF retires final MiG-21 Bison squadrons after six decades of service.
- **Agni-I and Prithvi-II** – Short-range ballistic missiles validating tactical and nuclear deterrence.
- **Akash Prime Missile System** – Indigenous surface-to-air missile strengthening high-altitude air defence.
- **AH-64E Apache Helicopters** – Attack helicopters enhancing border strike and Army Aviation capabilities.
- **Astra BVRAAM** – Indigenous long-range air-to-air missile improving air combat self-reliance.
- **S-400 'Sudarshan Chakra' Air Defence System** – Long-range air defence system deterring aerial threats.
- **MALE Drones** – Medium-altitude long-endurance UAVs for border surveillance and intelligence.
- **Defence Acquisition Council (DAC)** – Apex body approving capability-driven indigenous defence procurement.
- **Refugee, Deportation and Related Issues in India** – Managing deportations and pushbacks under national security and legal frameworks.
- **Flight-Tests of Pralay Quasi-Ballistic Missile** – Validates missile range, precision, and operational readiness.
- **Exercise Divya Drishti** – AI-enabled high-altitude military exercise enhancing battlefield awareness and sensor integration.
- **Kargil Vijay Diwas** – Commemorates India's victory in the 1999 Kargil War and high-altitude warfare lessons.
- **UAV-Launched Precision Guided Missile (ULPGM)-V3** – Enables autonomous precision strikes from lightweight drones.

INTERNAL SECURITY & DEFENCE

SOURCE – INDIAN EXPRESS

India's Defence Spending & Regional Ambitions

Recent Context -

Amid rising global militarisation, South Asia's defence outlays grow; India strengthens its military capabilities to secure borders, maritime interests, and its regional security role, despite economic constraints.

About -

1. **Global militarisation** rising; Asia-Pacific & South Asia witnessing fastest defence expenditure growth.
2. **India's spending** driven by China-LAC border, maritime security, Pakistan's asymmetric threats, and regional security provider ambitions.
3. **Pakistan** relies on conventional + nuclear deterrence; increasing dependence on China via defence partnerships.
4. **China** dominates Asia-Pacific defence spending (~50%), expanding nuclear arsenal and second-strike capabilities.
5. **India** developing nuclear triad: canisterised missiles, ballistic missile submarines, air-launched systems.
6. **Territorial & maritime disputes** drive deterrence by denial and securitisation of commons, combining peace-time and war-time readiness.
7. **Regional collaboration**: military drills, disaster-response exercises, dialogues on maritime security enhance India's strategic positioning.

SOURCE – PIB

INS Nistar: Strategic and Technological Milestone

Recent Context -

INS Nistar, India's first indigenously designed Diving Support Vessel (DSV), commissioned on 18 July 2025, boosts submarine rescue, undersea warfare preparedness, and India's role in Indo-Pacific maritime security.

About -

1. **First indigenous DSV** by Hindustan Shipyard Ltd (HSL) under Aatmanirbhar Bharat, commissioned 18 July 2025, Visakhapatnam.
2. **Technical specs**: Length 118m, Displacement 10,000+ tons, Operational depth 300m, supports deep-sea saturation diving.
3. **Advanced systems**: ROVs, SPHLB, diving compression chambers, serves as mother ship for DSRV operations.
4. **Strategic role**: Enhances India's first responder capability in maritime crises; strengthens submarine survivability, undersea warfare readiness, and regional rescue partnerships.
5. **Indigenisation**: >80% indigenous content, 120+ MSMEs involved, aligns with Make in India and Aatmanirbhar Bharat defence policy.
6. **Geostrategic impact**: Boosts Maritime Domain Awareness (MDA), HADR capability, and India's ambition as net security provider in Indo-Pacific.



SOURCE – VISION MONTHLY

Quantum Cyber Readiness: Strategic Cybersecurity Initiative

Recent Context -

MeitY, CERT-In, and SISA released a whitepaper on Quantum Cyber Readiness highlighting threats of quantum computing to encryption, urging post-quantum cryptography adoption before 2030.

About -

1. **Quantum Threat**: Quantum computers can break RSA and other asymmetric encryption, posing risks to sensitive data and defence communications.

- Harvest Now, Decrypt Later (HNDL):** Adversaries may **store encrypted data today** to decrypt later with quantum capabilities.
- Signature Impersonation:** Quantum attacks can **forge digital certificates**, enabling **malware** and **phishing attacks**.
- Zero-Day Quantum Vulnerabilities:** Unknown quantum algorithms may **compromise existing cryptography**; transition to **quantum-resistant systems** needed.
- Foundational Measures: Quantum Bill of Materials (QBOM)** for risk prioritization, procurement decisions, and compliance audits; **AI-enhanced risk assessment** for cryptographic patterns.
- Technology Readiness: Test Post-Quantum Cryptography (PQC)**, adopt **hybrid cryptography** combining classical and quantum-resistant algorithms.
- Futureproofing:** Explore **Quantum Key Distribution (QKD)**, use **ML-DSA** and **SLHDSA** for **secure digital signatures** in government, finance, and legal applications.

Operation Mahadev

Recent Context -

Indian Army, CRPF, and J&K Police conducted **Operation Mahadev** to eliminate **foreign terrorists** in **Kashmir** linked with **Pakistan-based groups** like **LeT**.

About -

- Type:** Joint counter-terror operation.
- Objective:** Neutralize infiltrating terrorists in Kashmir valley.
- Participants:** Indian Army, CRPF, J&K Police.
- Target:** Foreign terrorists supported by LeT.
- Strategic Impact:** Enhances **internal security** and **border stability**.
- Counter-Terror Collaboration:** Showcases synergy between **central and state forces**.
- Geopolitical Significance:** Addresses cross-border terrorism threats from **Pakistan-based groups**.

Operation Med Max

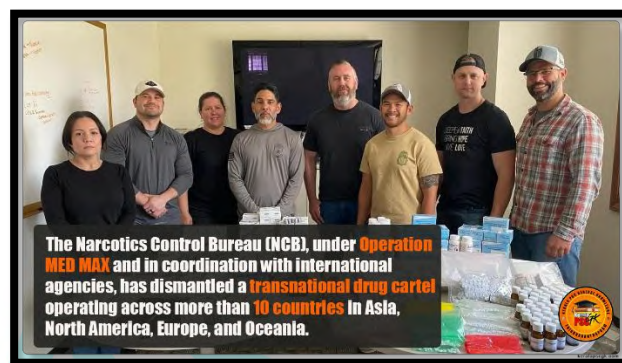
Recent Context -

Narcotics Control Bureau (NCB) dismantled a

transnational drug syndicate using **digital platforms**, **drop shipping**, and **cryptocurrency** to smuggle **controlled medicines** across **four continents**.

About -

- Type:** Anti-drug transnational operation.
- Lead Agency:** NCB.
- Target:** Illegal pharmaceutical drug trade.
- Methods:** Encrypted digital platforms, **cryptocurrency**, drop shipping.
- Scope:** Operation spanned **four continents**.
- Significance:** Highlights **digital-era challenges** in **narcotics control**.
- Policy Link:** Supports **global anti-drug enforcement** and **cyber-enabled crime tracking**.



Project 17A / INS Udaygiri

Recent Context -

INS Udaygiri, second **P-17A stealth frigate**, delivered to **Indian Navy**; **multi-role vessel** with enhanced **stealth**, **sensors**, and **weapons** for **blue-water operations**.

About -

- Type:** Stealth, multi-mission frigate.
- Follow-on:** From **Shivalik-class (P-17)**.
- Features:** Enhanced **stealth**, advanced **weapons and sensors**.
- Capability:** Surface protection, air threats, multi-role maritime tasks.
- Environment:** Designed for **blue-water operations**.
- Strategic Significance:** Strengthens **naval combat readiness and maritime security**.
- Indigenization:** Constructed under **Make in India** initiatives.



Extended Range Anti-Submarine Rocket (ERASR)

Recent Context -

DRDO tested indigenous anti-submarine rockets with twin-motor configuration and electronic time fuze for use from Indian Naval ships against submarines.

About -

1. **Type:** Indigenous anti-submarine rocket.
2. **Developer:** DRDO's ARDE, Pune.
3. **Launch Platform:** Indian Naval Ships.
4. **Configuration:** Twin-rocket motor, high accuracy.
5. **Guidance:** Electronic Time Fuze.
6. **Purpose:** Combat submarines, enhance undersea warfare.
7. **Significance:** Boosts naval self-reliance and maritime defence.

Astra Missile

Recent Context -

DRDO and IAF tested Astra BVRAAM with indigenous RF seeker from Su-30 Mk-I, capable of destroying highly manoeuvring supersonic aircraft beyond 100 km.

About -

1. **Type:** Beyond Visual Range Air-to-Air Missile (BVRAAM).
2. **Developer:** DRDO.
3. **Platform:** Su-30 Mk-I.
4. **Range:** Exceeds 100 km.
5. **Capability:** All-weather, day-night, supersonic targets.
6. **Guidance:** Advanced RF seeker & navigation systems.
7. **Strategic Impact:** Strengthens air combat superiority and indigenous missile tech.

Pralay Missile

Recent Context -

DRDO successfully tested Pralay, an indigenous short-range quasi-ballistic missile (150–500 km) capable of hypersonic speeds and maneuvering mid-flight, developed by RCI Hyderabad.

About -

1. **Type:** Surface-to-surface short-range missile.
2. **Range:** 150–500 km.
3. **Speed:** Hypersonic (> Mach 5).
4. **Trajectory:** Quasi-ballistic, maneuverable.
5. **Developer:** DRDO, RCI Hyderabad.
6. **Purpose:** Tactical strike capability, battlefield deterrence.
7. **Significance:** Enhances indigenous missile defence and precision strike.



Exercise Bold Kurukshetra 2025

Recent Context -

India–Singapore Joint Military Exercise, 14th edition, Exercise Bold Kurukshetra 2025, commenced as Table Top & Computer-Based Wargame to validate mechanised warfare operational procedures.

About -

1. **Type:** Bilateral military exercise.
2. **Participants:** India & Singapore.
3. **Edition:** 14th (2025).
4. **Mode:** Table Top Exercise & Computer-Based Wargame.
5. **Focus:** Mechanised warfare procedures.
6. **Strategic Significance:** Enhances bilateral defence interoperability.
7. **Operational Benefit:** Validates joint operational plans and tactics.

Bharat NCX 2025

Recent Context -

National Cybersecurity Exercise 2025 (Bharat NCX 2025) conducted by NSCS & Rashtriya Raksha University, aimed at strengthening national cyber resilience and simulating real-world cyberattacks with AI integration.

About -

1. **Type:** National cybersecurity exercise.
2. **Organizer:** NSCS in collaboration with RRU, Gandhinagar.
3. **Objective:** Strengthen cyber resilience and readiness.
4. **Key Feature:** Live-fire cyber simulations.
5. **Innovation:** AI-integrated cyber defence training.
6. **Focus:** Simulate real-world cyberattack scenarios.
7. **Policy Link:** Supports India's cyber preparedness and National Cyber Security Policy.

SIMBEX Exercise

Recent Context -

32nd Singapore–India Maritime Bilateral Exercise (SIMBEX) conducted by Indian Navy, ongoing since 1994, supports Vision SAGAR and Act East Policy, enhancing maritime cooperation with Singapore.



About -

1. **Type:** Bilateral naval exercise.
2. **Participants:** Indian Navy & Republic of Singapore Navy.
3. **Origin:** Exercise Lion King, 1994.
4. **Frequency:** Annual.

5. **Focus:** Maritime operations & interoperability.
6. **Strategic Link:** Vision SAGAR & Act East Policy.
7. **Significance:** One of India's longest uninterrupted maritime drills.

Exercise Talisman Sabre 2025

Recent Context -

Australia's largest multilateral exercise, Exercise Talisman Sabre 2025, includes **19 nations, >35,000 personnel**, covering land, sea, air, space, cyberspace, with live-fire & amphibious operations.

About -

1. **Type:** Multilateral military exercise.
2. **Participants:** 19 nations including India, US, Japan, UK.
3. **Scope:** Land, sea, air, space, cyber operations.
4. **Activities:** Live-fire, field training, amphibious landings.
5. **Observers:** Malaysia & Vietnam.
6. **Objective:** Enhance interoperability & combat readiness.
7. **Strategic Importance:** Strengthens regional security collaboration in Indo-Pacific.

Jaa Mata Exercise

Recent Context -

Japanese Coast Guard ship Itsukushima visited Chennai for **Jaa Mata**, a joint sea exercise with India, aiming to enhance operational capability and interoperability of coast guards.

About -

1. **Type:** Bilateral coast guard exercise.
2. **Participants:** India & Japan Coast Guard.
3. **Ship:** Japanese Coast Guard, Itsukushima.
4. **Focus:** Operational capability and combat skills.
5. **Mode:** Joint maritime operations.
6. **Objective:** Strengthen interoperability.
7. **Significance:** Enhances joint coastal security preparedness.

SOURCE – INSIGHTS

Sanchar Mitra Scheme

Context -

DoT's Sanchar Mitra Scheme is a volunteer-driven

digital literacy initiative using university students to raise awareness on **telecom safety, cyber hygiene, digital responsibility**, and bridge citizens with government services.

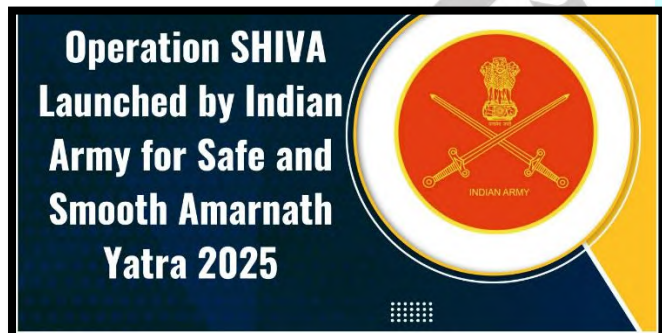
About -

1. **Type:** Volunteer-based digital outreach initiative.
2. **Organizer:** Ministry of Communications, DoT.
3. **Volunteers:** University students in telecom, electronics, CS, cybersecurity streams.
4. **Training:** NCA-T & DoT Media Wing on 5G, 6G, AI, cybersecurity, EMF safety.
5. **Activities:** Awareness campaigns, NGO collaborations, community outreach.
6. **Recognition:** Internships, India Mobile Congress, ITU forums.
7. **Significance:** Enhances **digital inclusion, cyber resilience, youth empowerment**.

Operation SHIVA 2025

Context -

Operation SHIVA 2025 is an annual high-altitude security mission by the Indian Army to ensure **safe Shri Amarnath Yatra**, deploying 8,500+ troops amid rising cross-border terror threats.



About -

1. **Type:** High-altitude security operation.
2. **Objective:** Prevent terrorist threats, drone attacks, ensure Yatra safety.
3. **Coordination:** Army, CAPFs, civil administration, disaster response teams.
4. **Troop Deployment:** 8,500+ soldiers on Baltal & Pahalgam routes.
5. **Technology:** 50+ C-UAS systems, UAV patrols, EW tools, PTZ cameras.

6. **Infrastructure Preparedness:** Bridge repair, track widening, landslide mitigation, medical readiness.
7. **Logistics:** Emergency rations, tent cities, helicopters, water stations, rescue equipment.

Operation ShivShakti

Context -

Operation ShivShakti is a counter-infiltration mission by Indian Army's White Knight Corps in Poonch (LoC) to neutralize terrorists, ensuring **civilian safety and border security** through coordinated intelligence operations.

About -

1. **Type:** Counter-infiltration operation.
2. **Launched by:** Indian Army & JKP (White Knight Corps).
3. **Area of Operation:** Degwar sector, Poonch (LoC).
4. **Objective:** Prevent cross-border terrorism, protect civilians & infrastructure.
5. **Tactics:** Swift, precise firepower; search-and-cordon operations.
6. **Intel Coordination:** Multi-agency intelligence inputs for targeted operations.
7. **Outcome:** Two terrorists neutralized, three weapons recovered, continued area surveillance.

MiG-21

Recent Context -

The Indian Air Force will retire its final two **MiG-21 Bison** squadrons in September 2025, ending over six decades of service since induction in 1963.

About -

1. **Type:** Soviet-designed single-engine supersonic fighter, inducted in **IAF** in 1963.
2. **Manufacture:** Licensed production by **HAL** in India.
3. **Capabilities:** Mach 2+, multi-role, all-weather operations.
4. **Operational History:** Key role in 1965 and 1971 **Indo-Pak wars**.

- Variants:** MiG-21 Bison with radar & avionics upgrades.
- Limitations:** Over 400 crashes; >200 pilot deaths.
- Replacement:** Phased out for **Tejas Mk-1A**; IAF at 29 squadrons.



AGNI-I AND PRITHVI-II

Recent Context -

India successfully test-fired **nuclear-capable short-range ballistic missiles** Agni-I and Prithvi-II from **Integrated Test Range, Chandipur**, validating combat readiness after the May 2025 Indo-Pak conflict.

About -

- Type:** Short-range ballistic missiles (**SRBM**).
- Developer:** **DRDO** under **IGMDP**.
- Range:** Prithvi-II ~350 km; Agni-I 700–900 km.
- Payload:** Prithvi-II 500 kg; Agni-I 1,000 kg; conventional & nuclear warheads.
- Guidance:** Advanced inertial navigation; high accuracy.
- Platform:** Road-mobile launchers for flexibility.
- Strategic Role:** Strengthens **nuclear deterrence** and second-strike capability.

AKASH PRIME MISSILE SYSTEM

Recent Context -

India successfully conducted a high-altitude trial of **Akash Prime missile** in **Ladakh**, enhancing indigenous air defence capabilities against aerial threats in mountainous border areas.

About -

- Type:** Upgraded **surface-to-air missile (SAM)**.
- Developer:** **DRDO**, **BDL**, **BEL**.

- Altitude:** Proven at 15,000 ft; suitable for **LAC**.
- Guidance:** Hybrid—command + terminal active homing.
- Range & Speed:** 30 km; Mach 2.5.
- Seeker:** Indigenous **active radar seeker**.
- Significance:** Boosts **Atmanirbhar Bharat** and high-altitude air defence.

INDIA'S 'AKASH' TO COUNTER DRAGON FIRE

Mission » To track & destroy hostile aircraft, helicopters, drones & sub-sonic cruise missiles

Surface-to-Air missile (SAM) system was one of the five core missile systems of the Integrated Guided Missile Development Programme launched by India in 1983. After long delays due to technical glitches, Akash now finally being deployed by IAF & army

| | |
|---|--|
| <p>IAF » Including eight squadrons, each with 2 'flights' of 4 launchers</p> <p>Cost ₹6,200 Cr</p> | <p>Army » including 2 Akash regiments, with six firing batteries & hundreds of missiles each</p> <p>Cost ₹14,180 Cr</p> |
|---|--|

MISSILE CHARACTERISTICS

- 5.6 metre in length;
- integrated two-stage Ramjet rocket propulsion technology; powered by an air-breathing engine; can carry warhead of 60kg
- 25-km interception range
- Low reaction, all-weather capability
- 96% indigenous
- Can handle multiple aerial threats from several directions simultaneously
- 88% kill probability within a specified kill zone

AH-64E APACHE HELICOPTERS

Recent Context -

India to receive first batch of **AH-64E Apache attack helicopters** from the US after a 15-month delay, to be deployed at **Jodhpur** for border security operations.

About -

- Type:** Multi-role **combat helicopter** by Boeing, USA.
- Induction:** US Army 1984; India receiving now.
- Weapons:** 30mm chain gun, 70mm rockets, **AGM-114 Hellfire missiles**.
- Sensors:** Longbow radar, thermal imaging, night vision.
- All-Weather Capability:** Day/night, high-altitude, low-visibility operations.
- Strategic Role:** Boosts **border strike capability** and Army Aviation modernization.
- Significance:** Enhances **India-US defence cooperation** and low-collateral warfare.

ASTRA BVRAAM

Recent Context -

DRDO and **IAF** successfully test-fired indigenous **Astra Beyond Visual Range Air-to-Air Missile (BVRAAM)**

with indigenous **RF seeker**, enhancing precision, self-reliance, and air superiority for India.

About -

1. **Type:** Beyond Visual Range Air-to-Air Missile.
2. **Developer:** DRDO, HAL, IAF.
3. **Range:** 100+ km; long-range engagement weapon.
4. **Guidance:** RF seeker with navigation & mid-course correction.
5. **Compatibility:** Fighter aircraft—Su-30 MKI, Tejas, Mirage-2000, MiG-29.
6. **Strategic Role:** Strengthens **Atmanirbhar Bharat** and indigenous capability.
7. **Advantage:** Reduces import dependency on missiles like **AMRAAM, Meteor**.



S-400 'SUDARSHAN CHAKRA' AIR DEFENCE SYSTEM

Recent Context -

India plans **MRO facility** for **S-400 Sudarshan Chakra** air defence system, enhancing operational readiness and long-range aerial threat deterrence along western and northern borders.

About -

1. **Type:** Long-range, multilayered **surface-to-air missile system**.
2. **Origin:** Russia; Indian name: **Sudarshan Chakra**.
3. **Procurement:** 5 squadrons; ₹35,000 crore; deliveries ongoing.
4. **Range:** Detects 600 km; engages targets up to 400 km.
5. **Targets:** Fighter jets, ballistic & cruise missiles, drones, hypersonic threats.
6. **Multi-Target:** Simultaneously tracks & engages 80 targets.

7. **Deployment:** Pathankot, Siliguri Corridor, Western Front; strategic airspace denial.

MEDIUM ALTITUDE LONG ENDURANCE (MALE) DRONES

Recent Context -

India has fast-tracked a ₹20,000 crore procurement of **87 MALE drones** from domestic firms under **Make in India**, enhancing border surveillance and multi-domain intelligence capabilities.

About -

1. **Type:** Medium Altitude Long Endurance (UAVs) for ISR and limited combat missions.
2. **Altitude & Endurance:** Operates up to ~35,000 ft; flights over 30 hours.
3. **Developer:** Indigenous, Make in India initiative; previously imported from Israel.
4. **Payload:** EO/IR cameras, radar, combat modules for real-time ISR.
5. **Operations:** Controlled remotely via secure ground stations.
6. **Applications:** Border surveillance, tri-services situational awareness, maritime security, counter-insurgency, disaster response.
7. **Significance:** Boosts defence preparedness, reduces import dependence, fuels indigenous drone ecosystem.

SOURCE – DRISHTI

DEFENCE ACQUISITION COUNCIL (DAC)

Recent Context -

The **DAC** approved ₹1.05 lakh crore capital acquisition proposals for 100% indigenous defence procurement, including naval assets, QR-SAM, and 156 Light Combat Helicopters from HAL.

About -

1. **Role:** Highest decision-making body for defence procurement.
2. **Established:** 2001, post-Kargil War reforms.
3. **Composition:** Chaired by Defence Minister; includes CDS, Army, Navy, Air Force Chiefs.
4. **Functions:** Approves AoN, LTIPP, categorizes acquisitions, oversees ToT & offsets.

5. **Acquisition Types:** Buy (Indian), Buy & Make, Make categories.
6. **Recent Approvals:** Naval Moored Mines, Submersible Vessels, QR-SAM, 156 Prachand helicopters (₹62,700 cr).
7. **Significance:** Enhances capability-driven, cost-effective, timely defence procurement.

Refugee, Deportation and Related Issues in India

Recent Context -

India has intensified deportations and pushbacks along eastern borders due to security concerns. Cases of wrongful expulsions, including of citizens, raise issues on due process, documentation, and constitutional safeguards.

About -

1. **Deportation:** Legal removal of foreigners; governed by Foreigners Act, 1946 & Immigration and Foreigners Act, 2025.
2. **Pushback:** Extralegal border return without due process; often by BSF; lacks judicial oversight.
3. **Immigration & Foreigners Act, 2025:** Modernizes visa, entry, registration, and border control; establishes Bureau of Immigration (BoI).
4. **Immigrants (Expulsion from Assam) Act, 1950:** Allows expulsion of foreigners threatening public interest or Scheduled Tribes in Assam.
5. **Citizenship Act, 1955:** Governs acquisition and renunciation of citizenship; includes OCI provisions.
6. **Refugee Policy:** India not a UN Refugee Convention signatory; humanitarian approach without legal recognition.
7. **Border Agreements:** Nepal – free movement; Myanmar – Free Movement Regime (10 km); Bangladesh/Pakistan – controlled movement.

SOURCE – THE HINDU

Flight-Tests of Pralay Quasi-Ballistic Missile

Context -

DRDO successfully conducted back-to-back flight-tests of **Pralay**, a surface-to-surface quasi-ballistic missile,

validating its range, precision, and subsystems, strengthening India's conventional deterrence and future Integrated Rocket Force capabilities.

About -

1. **Type:** Surface-to-surface, solid-fuel, quasi-ballistic missile.
2. **Developer:** DRDO labs—RCI, DRDL, ASL, with BDL & BEL.
3. **Objective:** Validate max/min range & subsystem performance under trials.
4. **Range & Payload:** Up to 500 km, 1000 kg warhead (unitary/cluster).
5. **Navigation:** INS + satellite-based guidance, in-flight manoeuvrability.
6. **Mobility:** Road-mobile, quick-launch for tactical response.
7. **Strategic Significance:** Non-nuclear deterrence, Operation Sindoor preparedness, key for Integrated Rocket Force.

Exercise Divya Drishti

Context -

Indian Army's **Exercise Divya Drishti** in East Sikkim tested AI-enabled battlefield awareness, UAV-ground coordination, and real-time surveillance under extreme Himalayan conditions, advancing doctrines for next-generation warfare and indigenous defence tech.

About -

1. **Type:** High-altitude AI-technology demonstration.
2. **Launched by:** Indian Army's Trishakti Corps.
3. **Objective:** Validate AI sensor integration, real-time battlefield intelligence, and sensor-to-shooter linkages.
4. **Deployment:** Ground platforms, drones, UAVs in East Sikkim operational simulations.
5. **Tech Features:** AI sensors, secured communication, real-time data transmission.
6. **Significance:** Enhances tactical readiness, hybrid warfare preparedness, and rapid decision-making.
7. **Supports Atmanirbhar Bharat:** Promotes Make in India for defence tech.

Kargil Vijay Diwas

Context -

Observed on 26 July, **Kargil Vijay Diwas** commemorates India's victory in the 1999 Kargil War, honoring soldiers' bravery while underscoring lessons in high-altitude warfare, civil-military coordination, and defence modernisation.

About -

1. **Type:** Annual commemoration of Operation Vijay's success.
2. **Background:** Pakistani infiltration in Dras, Batalik, Kaksar sectors in May 1999.
3. **India's Response:** Operation Vijay (Army), Operation Safed Sagar (IAF high-altitude strikes).
4. **Major Battles:** Tololing, Tiger Hill, Point 4875, Khalubar Ridge, Batalik.
5. **Outcome:** All positions reclaimed by 26 July 1999, 545 soldiers martyred.
6. **Global Recognition:** Praised for restraint, professionalism, and adherence to international law.
7. **Significance:** Led to CDS creation, joint command reforms, defence modernisation, public trust in Army.



UAV-Launched Precision Guided Missile (ULPGM)-V3

Context -

India successfully flight-tested **ULPGM-V3**, a UAV-launched precision missile, enhancing autonomous strike capability for lightweight drones, supporting Make in India, and enabling day-night precision engagement of static and moving targets.

About -

1. **Type:** UAV-launched air-to-surface precision guided missile.
2. **Developer:** DRDO with BDL, Adani, MSMEs & startups.

3. **Objective:** Autonomous, low-collateral drone strikes.
4. **Variants:** ULPGM-V1 (prototype), V2 (production), V3 (extended-range, improved).
5. **Range:** 4 km day, 2.5 km night; dual-thrust solid propulsion.
6. **Warhead & Guidance:** Imaging IR seeker, multiple warheads, fire-and-forget, two-way datalink.
7. **Integration:** Lightweight UAVs (Rustom, TAPAS-BH), enabling precision strikes without risking pilots.



TOPICS COVERED-

1. **High-Powered Demography Mission** – Launched to tackle illegal immigration, enhance border security, and ensure social cohesion through monitoring and repatriation.
2. **Increased Private Sector Share in Defence Production** – Private sector contribution rises to 23%, promoting Make in India, innovation, and defence self-reliance.
3. **Sudarshan Chakra Mission** – Multi-layered air defence system integrating missiles, lasers, cyber protection, and nationwide coverage.
4. **India's Joint Doctrines for Cyberspace Operations** – CDS declassifies doctrines to strengthen tri-service interoperability, hybrid warfare readiness, and cyber defence.
5. **Money Laundering via Cryptocurrency** – ED uncovers ₹260 crore crypto-based fraud, highlighting anonymity risks and regulatory gaps.
6. **Project 17A Frigate – Himgiri** – GRSE delivers advanced Nilgiri-class frigate with stealth, BrahMos, Barak 8 missiles, and multi-mission capability.
7. **Enduring Uncertainty and Global Terrorism Trends** – AI-driven volatility and evolving terrorism tactics challenge global security; India sees decline in ideological terror.
8. **Kargil War and India's Evolving Defence Strategy** – Lessons from 1999 war shaped intelligence reforms, modernization, and assertive operations like Operation Sindoor.
9. **India's Firm Retaliation Strategy and Regional Security Challenges** – Combines air strikes, diplomacy, and economic tools to deter cross-border terrorism while managing escalation risks.
10. **Escalating Geopolitical Tensions and India's Defence Imperatives** – Multi-front threats and defence budget gaps drive modernization and private-sector engagement.
11. **Pahalgam Attack: Strategic Lessons and India's Response** – Terror attack exposes security gaps, proxy warfare, and need for credible deterrence and strategic diplomacy.
12. **Disinformation as the Biggest Global Risk** – AI and social media amplify misinformation, threatening democracy, economy, and social cohesion in India.
13. **Digital Censorship and Vulgarities Laws in India** – Legal nuances of obscenity, content regulation, and techno-patrimonial control over online media.
14. **India's IAF Modernisation and China's Fighter Aircraft Advances** – China's fifth-generation fighters outpace India's indigenous projects, creating capability gaps.
15. **Research Security in India** – Protecting sensitive AI, biotech, and quantum research against cyberattacks and foreign exploitation.
16. **FDI and International Trade on National Security Grounds** – India regulates cross-border FDI under PN3, but lacks dedicated national security legislation.

INTERNAL SECURITY & DEFENCE

SOURCE – THE HINDU

High-Powered Demography Mission**Recent Context :**

PM launched the **High-Powered Demography Mission** on **Independence Day 2025** to tackle **illegal immigration**, enhance **border security**, and ensure **social cohesion** through **monitoring, identification, and repatriation measures**.

ABOUT-

1. **Illegal Immigrants:** Enter without valid documents; majorly from **Bangladesh**, estimated **~20 million** in 2016.
2. **National Security Threats:** Risk of **terror links, radicalization, smuggling, and cross-border crimes**.
3. **Socio-Economic Impact:** Strains **public services**, distorts **labour markets**, encroaches on **land resources**.
4. **Legislative Measures:** **Immigration & Foreigners Act 2025, National Register of Citizens (NRC), CAA 2019**.
5. **Border Management:** **Fencing, floodlighting, UAVs, Integrated Border Management System (CIBMS)**.
6. **Institutional Mechanisms:** **Foreigners Tribunals under Foreigners Act 1946** for detection and deportation.

Increased Private Sector Share in Defence Production**Recent Context :**

Private sector share in **defence production** rose to **23% in FY 2024-25**, driven by **Make in India, DAP-2020, FDI liberalization, and defence industrial corridors**.

ABOUT-

1. **Institutional Reforms:** **CDS creation, Department of Military Affairs** promote indigenous procurement.
2. **Policy Reforms:** **Defence Acquisition Procedure (DAP-2020), Positive Indigenization Lists, Make in India, and FDI up to 74% automatic, 100% government route**.

3. **Industrial Corridors: UP & TN Defence Corridors** attract investments with infrastructure & incentives.
4. **Innovation Support: iDEX & ADITI** promote startups and MSMEs in AI, drones, quantum tech.
5. **Challenges:** Dependence on **imports, technology gaps**, production delays, funding constraints, and export lag.
6. **Way Forward:** Enhance **R&D, Absorption of Technology (AoT)**, skill development, export competitiveness, and **PM-led Defence Technology Council**.
7. **Significance:** Positions India as a **manufacturing and innovation hub** in defence, integrating **startups, MSMEs, and private sector**.

Sudarshan Chakra Mission**Recent Context :**

PM launched **Mission Sudarshan Chakra** during **Independence Day 2025** to develop a **multi-layered air defence system**, integrating **missiles, laser-DEWs, cyber protection, and nationwide security coverage**.

**ABOUT-**

1. **Objective:** Strengthen **deterrent & offensive capabilities** and protect strategic, civilian, and religious assets.
2. **Timeline:** Mission completion by **2035**; Project Kusha LRSAM by **2028–29**.
3. **Indigenous Technology:** Entirely **researched, developed, and manufactured in India**.
4. **Key Components:** **QRSAM, VSHORADS, Laser-DEW**, integrated via **Centralised Command & Control Centre**.

5. **Air Defence Role:** Provides **air superiority**, **ground troop protection**, and **targeted precise action**.
6. **Integration:** Part of **Multi-Layered Missile Defence System**; complements **IADWS**.
7. **Strategic Impact:** Enhances **self-reliance**, **deterrence**, and **national security** against aerial threats.

SOURCE – INDIAN EXPRESS

India's Joint Doctrines for Cyberspace Operations

Recent Context :

CDS declassified **India's Joint Doctrines for Cyberspace and Amphibious Operations** to strengthen **tri-service interoperability**, enhance **multi-domain warfare capabilities**, and improve **national defence strategy** against hybrid threats.

ABOUT-

1. **Cyberspace Definition:** Global domain of **interconnected information systems, networks, satellites**, and control systems.
2. **Features of Cyberspace:** **Borderless, dual-use, real-time impact, anonymity, evolving threats**.
3. **Components:** **Defensive, offensive cyber operations, cyber intelligence, cyber support, resilience systems**.
4. **Operational Principles:** **Threat-informed planning, interoperability, layered defence, legal compliance, real-time response**.
5. **Amphibious Operations:** Coordinated **sea, air, land operations** for combat, **HADR**, and force projection.
6. **Significance:** Protects **critical infrastructure**, acts as **force multiplier**, ensures **maritime superiority**, and strengthens **jointness**.
7. **Strategic Preparedness:** Equips forces for **hybrid warfare** and signals India's **multi-domain defence capabilities** globally.

Money Laundering via Cryptocurrency

Recent Context :

ED raided **11 locations** in a ₹260 crore cyber fraud case using **cryptocurrencies and hawala**, highlighting

risks of **anonymous, cross-border crypto laundering** and need for stricter **regulatory oversight**.

ABOUT-

1. **Definition:** Laundering illegal funds via **digital currencies** like Bitcoin, Monero, USDT to obscure origin and reintroduce into financial system.
2. **Key Features:** **Anonymity, speed, low cost, cross-border ease, decentralization, lack of oversight**.
3. **Stages of Laundering:**
 - **Placement:** Convert cash to crypto via low-compliance exchanges.
 - **Layering:** Split across wallets, use **mixers, privacy coins, NFTs**.
 - **Integration:** Convert back to fiat, invest in **real estate, luxury goods, ICOs**.
4. **Challenges:** Weak **KYC/AML compliance, privacy coins**, jurisdictional conflicts, **low conviction rates**, P2P & crypto ATM usage.
5. **Key Risks:** Hard to trace due to **blockchain pseudonymity, automation of transactions**, and lack of unified global regulations.

Project 17A Frigate – Himgiri

Recent Context :

GRSE Kolkata delivered **Himgiri, 3rd Nilgiri-class (P17A) frigate**, advancing **self-reliance in warship construction**, equipped with **BrahMos, Barak 8 missiles, stealth, and multi-mission capabilities**.



ABOUT-

1. **Class & Yard:** Nilgiri-class (P17A), Yard 3022; modernized from INS Himgiri (Leander-class).
2. **Armament:** Equipped with BrahMos and Barak 8 missiles for strike and defense.
3. **Capabilities:** Features advanced sensors, stealth, multi-mission readiness.
4. **Propulsion:** Powered by Combined Diesel or Gas (CODOG) system, CPP shafts, Integrated Platform Management System (IPMS).
5. **Strategic Role:** Enhances naval strike, maritime surveillance, and defensive readiness.
6. **Indigenous Contribution:** Built by GRSE Kolkata, strengthening Make in India in warship construction.
7. **Operational Significance:** Part of India's P17A frigate program, boosting self-reliance and multi-domain maritime power.

SOURCE – VISION MONTHLY

Enduring Uncertainty and Global Terrorism Trends

Recent Context :

Global uncertainty rises with AI-driven volatility and persistent terrorism. India sees declining ideological terror, while extremist groups adapt via online radicalization, IS-inspired attacks, and potential AI-linked bio threats.

ABOUT-

1. **Perils of Prediction:** Historical forecasts often fail; continuity is usually the safest expectation in uncertain global affairs.
2. **AI and Volatility:** Rapid AI development increases unpredictability in geopolitics, security, and terrorism outcomes.
3. **Global Terrorism Persistence:** 25 years post-9/11, extremist violence continues with copycat killings and new methods (e.g., vehicle rammings).
4. **Online Radicalisation:** Digital platforms fuel lone-wolf attacks and provide propaganda material during global protests.
5. **AI-Linked Threats:** Concerns include bio-weapons access, misaligned AI, and potentially larger-scale terrorist operations.

6. **India's Divergence:** Ideologically motivated terrorism declining, especially Naxalism, with potential endgame by mid-2026.
7. **Naxalism's Dynamics:** Originated from 1960s revolutionary fervour, fragmented over decades; large-scale offensive since 2024 reduced cadres, leadership crises persist, epicentre in Dandakaranya region.

Kargil War and India's Evolving Defence Strategy

Recent Context :

Kargil War (1999) under nuclear overhang revealed gaps in India's military preparedness, prompting intelligence reforms, modernization, and integrated command structures, culminating in assertive operations like Operation Sindoor (2025).

ABOUT-

1. **Nuclear Context:** First war post-India and Pakistan nuclear tests, raising escalation risks.
2. **Pre-War Vulnerabilities:** India faced economic sanctions, political instability, and neglected defence modernization; military focus was on Kashmir and North-East insurgencies.
3. **Tactical Lessons:** Intelligence lapses, lack of aerial surveillance, artillery, logistics, and high-altitude gear caused early setbacks.
4. **Post-Kargil Reforms:** Creation of Defence Intelligence Agency (2002), NTRO (2004), better coordination among RAW, IB, military, NSA as strategic coordinator.
5. **Military Modernisation:** Introduction of Cold Start Doctrine, dedicated Mountain Corps, advanced platforms (Rafale, Apache, Chinook, S-400, BrahMos).
6. **Shift from Restraint to Deterrence:** Surgical strikes (2016), Balakot airstrike (2019), Operation Sindoor (2025) demonstrate proactive counter-terrorism posture.

India's Firm Retaliation Strategy and Regional Security Challenges

Recent Context :

India adopts firm retaliation against terrorism from Pakistan/PoK via air strikes, diplomacy, and economic

measures, balancing **deterrence** with risks of escalation and the need for **regional stability**.

ABOUT-

1. **Clear Retaliation Policy:** India declares it will **strike back** against terror attacks, using **IAF air strikes** and targeted operations.
2. **Diplomatic & Economic Pressure:** Non-military tools include **diplomatic isolation, messaging, and sanctions** to complement military deterrence.
3. **Domestic Consensus:** Unified political leadership provides **strong national backing** for firm action against cross-border terrorism.
4. **Limits of Escalation:** Full-scale war is costly; regional **tit-for-tat patterns** and limited global trust raise **escalation risks**.
5. **Diplomatic Reset Needed:** Past frameworks like **Vajpayee-Manmohan-Musharraf initiative** abandoned; current environment lacks **credible mediation** for lasting peace.
6. **Economic & Strategic Stakes:** India's **growth and regional stability** depend on peaceful neighbourhood; unrealistic ambitions (territorial rhetoric) risk **derailing economic gains**.

Escalating Geopolitical Tensions and India's Defence Imperatives

Recent Context :

India faces **3.5-front security challenges** (Pakistan, PoK, China, Bangladesh) amid **global rearmament**, rising conflict risks, and a **defence budget lagging behind strategic requirements**, prompting modernization and private-sector engagement.

ABOUT-

1. **Multi-Front Security Challenges:** India contends with threats from **Pakistan, PoK, China**, and **regional instability in Bangladesh**; Chinese assertiveness adds strategic pressure.
2. **Global Rearmament Trends:** Countries like **Germany and Japan** are increasing military capabilities, signaling **resurgence of hard-power politics**.
3. **Conflict as Global Risk:** **State-based armed conflicts** are top risks for 2025; nations assert

sovereignty and influence zones, increasing regional tensions.

4. **Defence Spending Gap:** India spends **~2% of GDP**; budget growth lags **nominal GDP (10–12%)**, with **capital expenditure only 26%** of total budget.
5. **China's Military Advantage:** China's military budget **>\$300 billion**, outpacing GDP growth; India's **~\$90 billion** creates **strategic capability gap**.

SOURCE – DRISHTI MONTHLY

Pahalgam Attack: Strategic Lessons and India's Response

Recent Context :

The **Pahalgam terror attack** targeted tourists to **undermine Kashmir's normalcy**, exposed **security lapses**, highlighted **Pakistan's proxy tactics**, and reinforced the need for **credible deterrence, strategic diplomacy, and local inclusion**.

ABOUT-

1. **Symbolic Targeting:** Attack in **Baisaran ("mini Switzerland")** aimed to **instill fear**, disrupt tourism, and send a political message challenging state control.
2. **Security & Intelligence Gaps:** High-risk zones like **Amarnath routes** lacked adequate vigilance; **drones and surveillance systems** were not deployed effectively.
3. **Proxy Warfare: The Resistance Front**, linked to **Lashkar-e-Taiba**, reflects Pakistan's use of proxies for **plausible deniability**.
4. **Managed Escalation:** Pakistan's strategy, under General **Asim Munir**, combines religious grievance with calculated **military and political objectives**.
5. **Strategic Indian Response:** Move beyond emotional condemnation to **planned deterrence**, using diplomacy, trade, and covert tools to signal real costs.
6. **Global Engagement:** India must **press allies**, especially the **U.S.**, for proactive anti-terror measures rather than post-attack sympathy.

Disinformation as the Biggest Global Risk

Recent Context :

Disinformation, accelerated by **AI and social media**, threatens **democracy, economy, and social cohesion**. India faces heightened risk due to **political polarization, rising internet users, and cross-border digital campaigns**.

ABOUT-

- Global Risk Recognition:** WEF identifies **disinformation** as the top short-term global risk impacting **politics, economy, and international relations**.
- Technological Acceleration:** AI-generated content and algorithmic feeds increase **reach and believability of false information**.
- India's Vulnerability:** Over **900 million internet users**, linguistic diversity, and declining trust in mainstream media amplify misinformation risks.
- Political Disinformation:** In India, **46% of misinformation** is politically motivated, influencing **voter perception and public opinion**.
- Cross-Border Threats:** China targets India through apps and platforms, prompting bans on over **300 apps**, including TikTok.
- Government Response:** Initiatives like **Shakti Fact-Checking Collective** and **Deepfake Analysis Unit** mitigate misinformation during elections.

Digital Censorship and Vulgarity Laws in India

Recent Context :

Digital censorship in India, highlighted by **Ranveer Allahabadi's case**, reflects the **legal nuances of obscenity**, government control over content, and a shift towards **techno-patrimonialism in regulating online media**.

ABOUT-

- Supreme Court Ruling:** In **Apoorva Arora v. Delhi (2024)**, foul language alone is **not obscene**; only sexually arousing content is.
- Digital Censorship Laws:** IT Rules 2021 allow **content regulation**, despite Section 69A

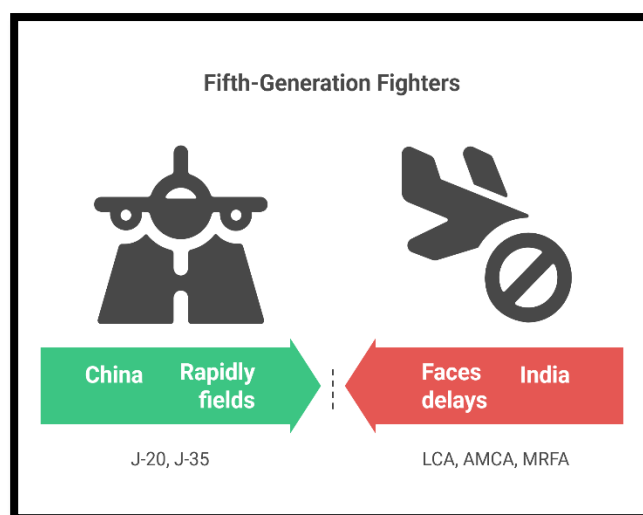
restricting blocking based on **morality or decency**.

- Broadcasting Bill:** Proposed to regulate **digital creators** akin to traditional media; Parliamentary Committee led by **Nishikant Dubey** advocates stricter norms.
- Case Example:** 2021 **Tandav series** faced edits under criminal cases, illustrating **content compliance pressures**.
- Political Economy Lens: Techno-patrimonialism** links technology and political benefits, shaping online **content control and reward systems**.
- Supreme Court Response:** Criticized public figures like Ranveer Allahabadi, emphasizing **social norms vs. criminality**.
- Wider Implication:** Digital regulation aims at **restricting challenges to power**, affecting **freedom of expression and online media governance**.

India's IAF Modernisation and China's Fighter Aircraft Advances

Recent Context :

China rapidly fields **fifth-generation fighters (J-20, J-35)**, while India's **IAF faces delays** in indigenous platforms like **LCA, AMCA, and MRFA**, creating strategic capability gaps.



ABOUT-

- China's Capability:** Operates **J-20 and J-35 stealth fighters**, with new delta-wing and tail-

less designs approaching **U.S. technology levels**.

2. **IAF Strength:** Currently **31 squadrons**, below sanctioned **42**, lacking operational fifth-generation fighters.
3. **Indigenous Projects:** **LCA-Mk1A (83 jets), LCA-Mk2 (2027), AMCA (next decade); MRFA (114 jets)** under procurement with technology transfer.
4. **Procurement Challenges:** **Engine delays, MRFA slow progress, aging fleet** (MiG-21, MiG-29, Jaguars, Mirage-2000) hinder capability upgrades.
5. **Self-Reliance Efforts:** HAL and DRDO increasing **indigenous production**, including AMCA Mk2 co-development with France for **110KN engine**.
6. **Short-Term Measures:** **Su-30MKI upgrades, 12 additional jets**, and prolonging **aging aircraft service** address immediate operational gaps.

Research Security in India

Recent Context :

India's 2047 development goals rely on **science and technology**. Protecting sensitive research in **AI, biotech, quantum tech** is crucial against cyberattacks, foreign interference, and intellectual property theft.

ABOUT-

1. **Definition:** Research security safeguards **sensitive data, IP, and national interests** in strategic scientific fields.
2. **Global Incidents:** Harvard professor arrested for undisclosed Chinese funding; **COVID-19 vaccine and ESA research** targeted by cyberattacks, highlighting vulnerabilities.
3. **International Practices:**
 - **USA:** CHIPS and Science Act, NIST guidelines.
 - **Canada:** National Security Guidelines for Research Partnerships; restrictions on China/Russia collaborations.
 - **EU:** Risk-based approach for Horizon Europe.

- **China:** Military-civil fusion strategy integrating civilian research with defense.
4. **Proposed Indian Measures:**
 - **Vulnerability Mapping** of labs and universities.
 - **Framework Development** similar to EU's risk-based model.
 - **Expert Engagement** and international collaboration.
 - **Institutional Setup:** Dedicated research security office under **Anusandhan National Research Foundation**.
 5. **Strategic Importance:** Protects **critical technologies**, ensures uninterrupted R&D, and prevents adversarial exploitation.

FDI and International Trade on National Security Grounds

Recent Context :

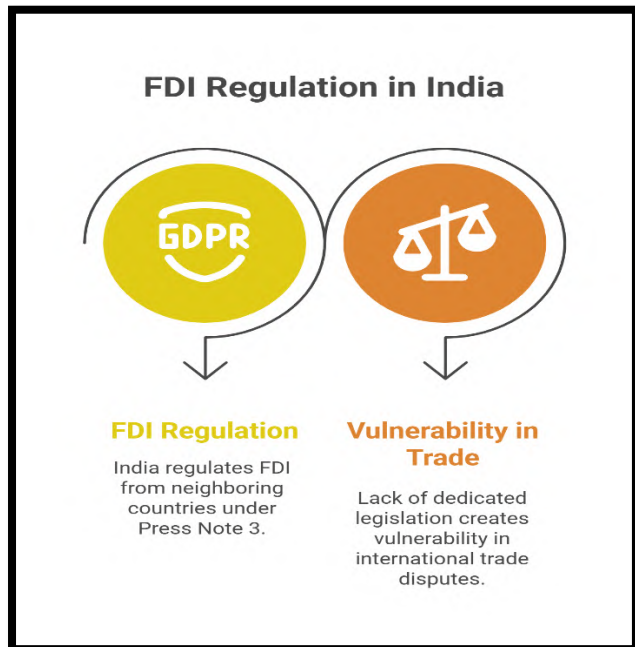
India regulates FDI from **neighboring countries** under **Press Note 3 (PN3)** to protect national security. Lack of dedicated legislation creates **vulnerability in international trade disputes**.

ABOUT-

1. **PN3 Regulation (2020):** Requires **government approval for FDI** from countries sharing land borders, primarily targeting Chinese investments.
2. **Legal Vacuum:** India lacks a **dedicated law** for FDI on national security; relies on **FEMA and Customs Tariff Act** as stop-gap measures.
3. **International Comparisons:**
 - **Canada:** Investment Act screens foreign investments for security risks.
 - **Australia:** Has specific national security FDI laws.
4. **Trade Implications:** Post-Pulwama, India imposed **200% duty on Pakistani imports** under Section 8A(1) of Customs Tariff Act, exposing gaps in a formal national security framework.
5. **Model Bilateral Investment Treaty (2015):** Separates **national security provisions** from

economic concerns, highlighting domestic legislative gaps.

6. **Strategic Risk:** Reliance on general laws could invite **challenges in international courts** and weaken India's negotiating position.



4. **Freedom Struggle Contribution:** Played major roles in **Chuar Rebellion, Indigo Rebellion, Santhal Uprising, Quit India Movement;** leaders like **Raghunath Mahato, Gopal Mahato.**
5. **British Era Recognition: Gazette notifications (1913 & 1931)** identified them as “**Notified Tribe**” with distinct **customary inheritance practices.**

DE-NOTIFIED, NOMADIC AND SEMI-NOMADIC TRIBES (DNTS)

RECENT UPDATE:

DWBDNC members wrote to the **Prime Minister** seeking **permanent commission status, staff, funds, and financial powers** for welfare of **De-notified, Nomadic and Semi-Nomadic Tribes.**



ABOUT DE-NOTIFIED, NOMADIC AND SEMI-NOMADIC TRIBES (DNTS):

1. Who They Are:

- **De-notified Tribes (DNTs):** Communities once listed under **Criminal Tribes Act, 1871**, branded as “**born criminals**”.
- **Nomadic Tribes (NTs):** Groups practicing **seasonal or continuous migration** for livelihood (**salt trading, animal rearing, folk entertainment**).
- **Semi-Nomadic Tribes (SNTs):** Follow **shorter, less frequent migrations** than nomads.

2. Historical Background:

- **1871–1947:** ~200 communities notified as **criminal** under the Act.
 - **1952:** Act repealed; communities officially “**de-notified**”.
 - **2008: Renke Commission** listed DNTs and highlighted **extreme marginalisation.**
3. **Population:** Around **10% of India’s population (~13 crore people).**
 4. **Spread:** ~**150 DNT groups** and ~**500 nomadic communities** across states.
 5. **Cultural & Social Character:**
 - Rich **cultural traditions, deities, festivals, oral literature, dispute-resolution systems.**
 - Traditionally moved in **groups of 5–20 families; annual camps** for reunions, marriages, cattle trade.

INTERNAL SECURITY OR DEFENCE

CYBERCRIME IN INDIA

Recent Update: A Parliamentary panel report titled “*Cyber Crime – Ramifications, Protection and Prevention*” highlighted the growing complexity of cyber threats in India.



About:

- 1) **Definition:** NCRP defines cybercrime as unlawful acts using computers, networks, or devices as tools or targets.
- 2) **Common Types:** Malware, ransomware, phishing, vishing, smishing, and identity theft.
- 3) **Emerging Threats:** Digital arrest, cryptojacking, deepfake scams, and Crime-as-a-Service (CaaS).
- 4) **Reasons for Rise:**
 - a) Rapid digitalisation through Aadhaar, UPI, DigiLocker.
 - b) Transnational cyber syndicates and “scam factories” trafficking Indians abroad for fake loan apps or crypto crimes.

ENFORCEMENT DIRECTORATE (ED)

Recent Update: ED reported a **94% conviction rate** under PMLA cases, recovering ₹34,000 crore for victims.

About:



- 1) **Meaning of Money Laundering:** Concealing criminal proceeds to make them appear legitimate.
 - a) **Stages:** Placement → Layering → Integration.
- 2) **Establishment:** 1956; HQ – New Delhi.
- 3) **Control:** Department of Revenue, Ministry of Finance.
- 4) **Mandate:** Investigate offences under PMLA, FEMA, Fugitive Economic Offenders Act, and COFEPOSA (as sponsoring agency).
- 5) **Functions:** Confiscation of proceeds, prosecution of offenders, preventive detention for smuggling and forex violations.

INDIAN OCEAN NAVAL SYMPOSIUM (IONS)

Recent Update: Emerging Leaders Panel Discussion held at Kochi under IONS framework.

About:

- 1) **Launch:** 2008 by Indian Navy.
- 2) **Aim:** Maritime cooperation among Indian Ocean littoral states.
- 3) **Membership:** 25 members + 9 observers.
- 4) **Eligibility:** Nations with Indian Ocean coastline and naval/maritime capability.
- 5) **Chairmanship:** Rotates biennially; India to chair 2025–27.

ANDROTH

Recent Update: Indian Navy inducted **INS Androth**, an indigenously built **Anti-Submarine**

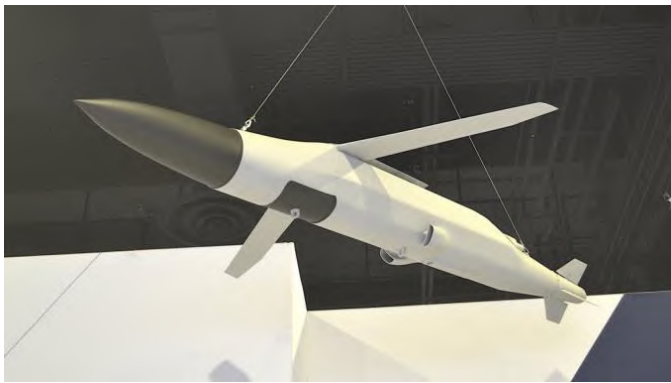
Warfare Shallow Water Craft (ASW SWC).

About:

- 1) **Builder:** Garden Reach Shipbuilders & Engineers (GRSE), Kolkata.
- 2) **Series:** Second ship after “Arnala.”
- 3) **Features:** Diesel engine–waterjet propulsion, equipped with lightweight torpedoes and indigenous ASW rockets.
- 4) **Naming:** Derived from Androth Island, Lakshadweep.

EXTENDED RANGE ATTACK MUNITIONS (ERAMs)

Recent Update: US approved delivery of **ERAMs** to Ukraine.



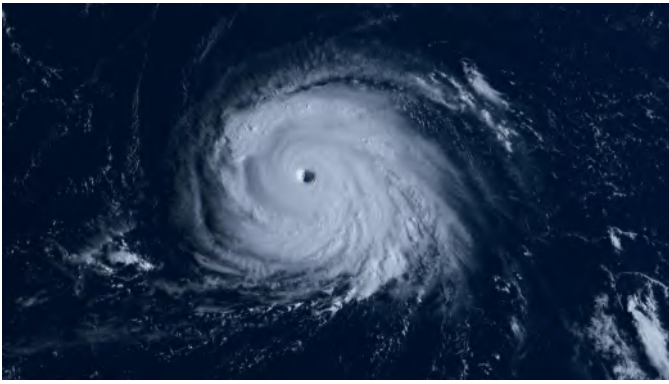
About:

- 1) **Type:** Air-launched, precision-guided missile.
- 2) **Range:** 240–450 km.
- 3) **Warhead:** 500-pound high explosive for bunkers and fuel depots.
- 4) **Guidance System:** GPS + inertial navigation + terminal seeker; accuracy within 10 meters.

EXERCISES IN NEWS

1. **Exercise Bright Star:** India to participate in 2025 edition. Origin – 1980 (US–Egypt); now multilateral tri-service.
2. **Exercise Maitree-XIV:** India–Thailand joint training (since 2006), focused on counter-terror ops in semi-urban terrain.

3. **Exercise Zapad-2025:** Russia–Belarus exercise with India’s participation; tests defense readiness against external threats.

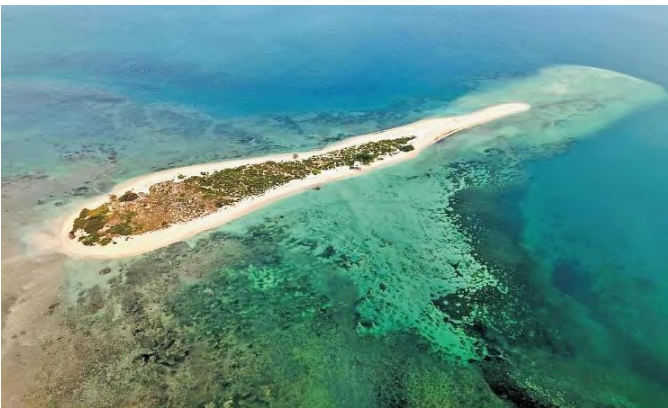


About:

1. Locally called **Typhoon Nando**.
2. Formed over **western Pacific Ocean**.
3. Intensified due to **warm waters & low wind shear**.
4. Category 5 = winds above **250 kmph**.
5. Triggered strong **storm surges, flooding & landslides**.
6. Followed typical west Pacific **typhoon trajectory**.
7. Demonstrates rising **extreme climate events**.
8. Monitored by **JTWC, PAGASA & global weather agencies**.

TN-SHORE MISSION

Recent Update: World Bank approved the **₹1,675-crore TN-SHORE coastal restoration project**.



About:

1. Tamil Nadu's major **coastal economy & resilience mission**.
2. Restores **1,000 ha of mangroves** across 14 districts.
3. Improves **coastal habitats, seascapes & biodiversity**.
4. Targets restoration of **30,000 ha of seascapes**.
5. Protects **dugongs, turtles & endangered marine fauna**.
6. Enhances **livelihoods of coastal communities**.
7. Strengthens disaster resilience against **cyclones & erosion**.
8. Supported under **World Bank funding**.



YUDH KAUSHAL 3.0

Recent Update: Conducted by the Indian Army in high-altitude Arunachal Pradesh.

About:

1. A major **high-altitude military exercise** in Kameng region.
2. Focus: assessing preparedness for **next-generation Himalayan warfare**.
3. Marked debut of **ASHNI platoons** integrating advanced technology with infantry.
4. Tested drone systems, surveillance grids & AI-enabled combat tools.
5. Strengthens India's combat readiness near the LAC.
6. Enhances joint operational coordination in mountainous terrain.
7. Reinforces India's defensive posture against evolving security threats.

SAMUDRA PRADAKSHINA (2025)

Recent Update: India launched world's **first all-women tri-service circumnavigation mission**.



About:

1. Voyage on **IASV Triveni**, a 50-ft indigenous yacht.
2. Crew: **10 women officers** from Army, Navy, Air Force.
3. Led by **Lt. Col. Anuja Varudkar**.
4. Duration: **9 months**, covering **26,000 nautical miles**.
5. Crosses Equator twice; rounds **Cape Horn, Cape Leeuwin, Cape of Good Hope**.
6. Major port calls: **Fremantle, Lyttelton, Buenos Aires, Cape Town**.
7. Builds on Navika Sagar Parikrama expeditions (2017–18 & 2024–25).

INS ANDROTH

Recent Update: The Indian Navy has recently received **INS Androth**, the second ASW–Shallow Water Craft.



About:

1. **INS Androth** is the **second** of eight indigenous **Anti-Submarine Warfare Shallow Water Craft (ASW-SWC)**.
2. It is built by **Garden Reach Shipbuilders & Engineers (GRSE), Kolkata**.
3. It has been named after **Androth Island** of the Lakshadweep archipelago.
4. Designed for **anti-submarine operations in shallow coastal waters**.
5. Equipped with advanced **sonars, combat management systems**, and lightweight ASW weapons.
6. Features high manoeuvrability and **swift interception** capability.
7. Supports coastal defence, search-and-rescue, and **maritime security** operations.
8. It is one of the **largest shallow-water ASW warships** built indigenously.

ZIRCON (TSIRKON) MISSILE

Recent Update: Russia recently tested and operationalised the **Zircon hypersonic missile** for naval deployment.



About:

1. **3M22 Zircon** is a **scramjet-powered hypersonic cruise missile** developed by Russia.
2. Achieves speeds up to **Mach 9**, making interception extremely difficult.

3. Operational range: **400–450 km** at low altitude; up to **1,000 km** in semi-ballistic trajectory.
4. Generates a **plasma cloud** during flight → provides **plasma stealth**, reducing radar detection.
5. Can be launched from **surface ships and submarines**.
6. Designed to strike **warships, carrier groups, and land targets**.
7. Strengthens Russia's **hypersonic strike capability**.
8. Considered one of the **fastest cruise missiles** currently developed.

INS TRIKAND

Recent Update: INS Trikand was deployed to the **Mediterranean Sea** for bilateral exercises with Greece.



About:

1. **Talwar-class guided-missile frigate**, built by Yantar Shipyard, Russia.
2. Third and final ship of the **second batch** of Talwar-class frigates.
3. Part of the **Western Fleet**, under **Western Naval Command, Mumbai**.
4. Equipped with **BRAHMOS** supersonic cruise missiles.
5. Has **Shtil surface-to-air missile systems** for air defence.
6. Can operate a **Kamov-31 helicopter** for airborne surveillance.
7. Designed for **anti-air, anti-ship, and anti-submarine warfare**.
8. Enhances India's **blue-water naval presence**.

EXERCISE PACIFIC REACH (2025)

Recent Update: India is participating with **INS Nistar** in Singapore.

About:

1. A **multinational biennial naval exercise**.
2. Hosted in **Singapore**; 40+ nations expected.
3. Conducted in two phases: **harbour phase & sea phase**.
4. Focus: submarine rescue, diving ops, underwater interoperability.
5. India participating with **INS Nistar**, its new Diving Support Vessel (DSV).
6. Enhances cooperation with Indo-Pacific navies.
7. Helps India strengthen **HADR & underwater rescue** capability.
8. Part of India's engagement in **ASEAN maritime architecture**.

MIG-21 FIGHTER JETS

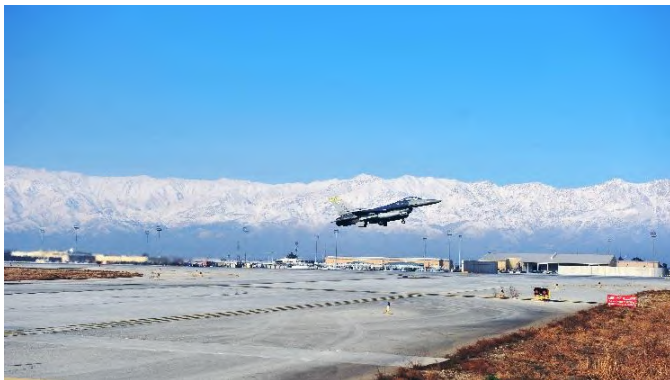
Recent Update: Government decided to **discontinue MiG-21 fleet** from IAF.

About:

1. India's **first supersonic fighter** inducted in **1963**.
2. Designed by **Mikoyan-Gurevich (USSR)**; NATO name: **Fishbed**.
3. Capable of **Mach 2+** speeds; all-weather, multirole.
4. India produced MiG-21 under **full technology transfer**.
5. MiG-21 Bison = most advanced Indian variant.
6. Criticised due to **high accident rates** in later decades.
7. Used air-to-air missiles, bombs, and cannons.
8. Served for **six decades**, longest in IAF history.

BAGRAM AIR BASE

Recent Update: Featured after Taliban's renewed military movements near Kabul.



About:

1. Largest **air base in Afghanistan**.
2. Built by **Soviet Union** during the Cold War.
3. Located north of **Kabul**.



4. Strategically between **Iran, Pakistan, Xinjiang (China), Central Asia**.
5. Served as US operational HQ during **2001–2021 war**.
6. Facility includes **multiple runways, hangars, detention sites**.
7. Seen as a symbol of **US military footprint** in the region.
8. Controls access to **Hindukush & northern Afghanistan**.

EXERCISE AMOGH FURY

Recent Update: Recently conducted by the Indian Army in the **Thar Desert**.

About:

1. Integrated **Fire Power Exercise** by the Sapta Shakti Command.
2. Tests coordination of **artillery, infantry, armour & aviation** units.
3. Simulates **battlefield conditions** in desert terrain.
4. Enhances rapid **target engagement capability**.
5. Validates **precision weapons, drones & surveillance systems**.
6. Strengthens India's **desert warfare preparedness**.
7. Conducted periodically for **combat-readiness assessment**.
8. Supports training for **multi-domain joint operations**.

COLD START EXERCISE

Recent Update: India to conduct the largest **Cold Start tri-service drill** in MP.

About:

1. Tri-service exercise including **Army, Navy, Air Force**.
2. Evaluates **drone systems & counter-drone tech**.
3. Largest since **Operation Sindoor**.
4. Conducted in **Madhya Pradesh**.
5. Enhances **rapid mobilization & strike capability**.
6. Tests integration of **precision weapons**.
7. Prepares forces for **short-notice offensive operations**.
8. Supports India's evolving **Cold Start Doctrine** framework.

JAL PRAHAR 2025

Recent Update: Conducted jointly by the **Indian Navy and Indian Army** in Andhra Pradesh.

About:

1. Biannual joint military exercise enhancing **inter-service coordination**.
2. Conducted in two phases: **Harbour Phase (Visakhapatnam)** and **Sea Phase (Kakinada)**.
3. Strengthens amphibious warfare preparedness.
4. Tests maritime logistics and rapid deployment capabilities.
5. Supports synergy under **joint operational doctrines**.
6. Includes real-time operational manoeuvres.
7. Enhances coastal defence and asset mobilisation.
8. Improves interoperability between ground and naval forces.



RAMON MAGSAYSAY AWARD 2025

Recent Update: **NGO Educate Girls** became the first Indian organisation to win the 2025 award.



About:

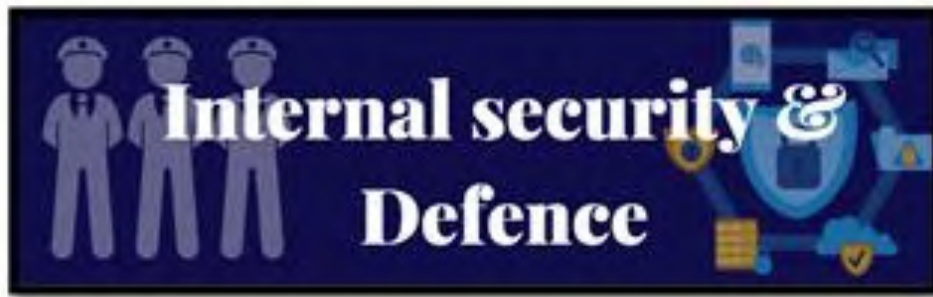
1. Asia's highest honour, known as "**Nobel Prize of Asia**".
2. Established in **1958** in memory of Philippine President **Ramon Magsaysay**.
3. Award presented every **August 31** (Magsaysay's birth anniversary).
4. Initially had **six categories**; post-2009 awards are category-free except **Emergent Leadership**.
5. Organised by **Rockefeller Brothers Fund + Govt of Philippines**.
6. Indian awardees include **Vinoba Bhave, Mother Teresa, Satyajit Ray, Ravish Kumar, Kailash Satyarthi**, etc.
7. 2025 winners: **Educate Girls (India), Shaahina Ali (Maldives), Flaviano Villanueva (Philippines)**.

HOCKEY ASIA CUP 2025

Recent Update: India won the **2025 Men's Hockey Asia Cup** held in Rajgir, Bihar, defeating Korea 4–1.

About:

1. A **quadrennial continental championship** organised by the **Asian Hockey Federation (AHF)**.
2. Winner gets a **direct qualification** to the **FIH Hockey World Cup**.
3. The 2025 edition was hosted for the **first time in Bihar**.
4. India won its **4th Asia Cup title**, joining Korea (5) and Pakistan (3) among top winners.
5. Serves as a key pre-World Cup tournament for assessing team preparedness.



TOPICS COVERED

- 1. Cryptocurrencies and Smuggling**
- 2. AI in Law Enforcement (MahaCrimeOS Platform)**
- 3. Biological Weapons Convention (Biosecurity)**
- 4. Bureau of Port Security (BoPS)**
- 5. Defence Acquisition Council (DAC)**
- 6. Pinaka Long Range Guided Rocket (LRGR-120)**
- 7. INSV Kaundinya**
- 8. Akash-NG Missile System**
- 9. Exercise Desert Cyclone-II (India-UAE)**
- 10. Nanobots in Medicine**
- 11. Border Roads Organisation (BRO)**
- 12. Regional Level Pollution Response Exercise (RPREX-2025)**
- 13. INS Aridaman (SSBN)**
- 14. INS Taragiri (Project 17A Stealth Frigate)**
- 15. Hansa-3 NG Trainer Aircraft**
- 16. Diving Support Craft (DSC A20)**
- 17. HAMMER (AASM) Precision-Guided Weapon**
- 18. Exercise Harimau Shakti (India-Malaysia)**
- 19. Chanakya Defence Dialogue 2025**
- 20. MH-60R Seahawk Helicopter**
- 21. Civil Nuclear Sector in India**
- 22. Pusa DST-1 Climate-Resilient Rice Variety**
- 23. Exercise AUSINDEX (India-Australia)**
- 24. S-500 Prometey Air Defence System**
- 25. Operation Pawan (IPKF – Sri Lanka)**
- 26. HAL Tejas LCA Mk-1A**
- 27. Exercise Ajeya Warrior (India-UK)**
- 28. Vikram-I Launch Vehicle**
- 29. Thorium Molten Salt Reactor (TMSR)**
- 30. National Action Plan on Antimicrobial Resistance (NAP-AMR 2.0)**
- 31. African Swine Fever (ASF)**
- 32. Sentinel-6B Satellite**
- 33. Exercise Poorvi Prachand Prahar (Tri-Service)**

CRYPTOCURRENCIES AND SMUGGLING

Recent Update: DRI report flagged rising use of **stablecoins and crypto for drug and gold smuggling payments**



About

1. **Cryptocurrencies** are **blockchain-based digital currencies** operating without control of any **central bank or government**.
2. Blockchain acts as a **decentralised public ledger**, permanently recording all transactions.
3. They are **non-fiat assets with no intrinsic value**, deriving worth purely from market demand.
4. **Stablecoins** are pegged to **fiat currency or gold**, reducing volatility and enabling predictable transactions.
5. Their **decentralised and borderless nature** enables cross-border illicit trade through dark web markets.
6. **Anonymous crypto wallets and VPNs** allow off-the-book payments, aiding under-invoicing and tax evasion.
7. **Pseudonymous identities** make tracing criminals difficult for enforcement agencies.
8. **Regulatory gaps and limited blockchain forensics capacity** hinder detection of illegal financial flows.

AI IN LAW ENFORCEMENT

Recent Update: Maharashtra launched **MahaCrimeOS AI platform for cybercrime investigation**

About

1. MahaCrimeOS is an **AI-powered investigation co-pilot**, developed with Microsoft and CyberEye.

2. Automates **case creation, documentation, analysis and report generation**.
3. Provides **adaptive investigation paths and profiling of persons of interest**.
4. **Predictive policing models** analyse crime hotspots and behaviour trends for proactive action.
5. Uses **facial recognition systems** linked with criminal databases for faster suspect identification.
6. Employs **drones and digital forensics tools** for surveillance and evidence analysis.
7. **Automatic Number Plate Recognition (ANPR)** tracks suspicious vehicles in real time.
8. Enhances **speed, efficiency and data-driven policing**, though raises privacy and bias concerns.

BIOSECURITY AND BIOLOGICAL WEAPONS CONVENTION (BWC)

Recent Update: India hosted global meet marking **50 years of BWC focusing on biosecurity for Global South**

About

1. BWC is the **first multilateral treaty banning an entire class of WMDs (biological weapons)**.
2. Prohibits **development, production, stockpiling and use** of biological and toxin weapons.
3. Supplements **1925 Geneva Protocol**, which banned only usage, not production.
4. Opened in **1972 and entered into force in 1975**.
5. Has **189 States Parties**, reflecting near-universal commitment.
6. Article I defines prohibited agents lacking **peaceful or protective justification**.
7. Promotes **capacity building, cooperation and technical assistance** for biosecurity.
8. Increasingly relevant amid **biotechnology advances, pandemics and synthetic biology risks**.

BUREAU OF PORT SECURITY (BOPS)

Recent Update: Government to establish BoPS as statutory body for port and vessel security

About

1. BoPS will be constituted under **Merchant Shipping Act, 2025**.
2. Modelled on **Bureau of Civil Aviation Security (BCAS)** framework.
3. Responsible for **regulatory and oversight functions for ship and port safety**.
4. Monitors **maritime threats including terrorism, piracy and sabotage**.
5. Ensures **collection and exchange of security intelligence**.
6. Focuses strongly on **cybersecurity of port infrastructure and logistics systems**.
7. Coordinates with **Coast Guard, Navy and port authorities**.
8. Functions under **Ministry of Ports, Shipping and Waterways**.

DEFENCE ACQUISITION COUNCIL (DAC)

Recent Update: DAC approved ₹79,000 crore capital procurement proposals

About

1. DAC is the **highest decision-making body for defence capital acquisitions**.
2. Chaired by **Raksha Mantri**, with CDS and Service Chiefs as members.
3. Grants **Acceptance of Necessity (AoN)**, the first formal step in procurement.
4. Approves **Long-Term Perspective Plans (15 years)** for strategic capability building.
5. Categorises procurement as **Buy, Buy & Make or Make**, promoting indigenisation.
6. Coordinates **financial, production and R&D wings** for integrated planning.
7. Ensures **time-bound, transparent defence procurement**.
8. Supports **Aatmanirbhar Bharat in defence manufacturing**.

PINAKA LONG RANGE GUIDED ROCKET (LRGR-120)

Recent Update: DRDO conducted maiden successful flight test at Chandipur



About

1. LRGR-120 is a **precision-guided variant of Pinaka multi-barrel rocket system**.
2. Developed by **ARDE-DRDO with HEMRL collaboration**.
3. Extends strike range to **120 km**, increasing battlefield reach.
4. Features **advanced navigation and guidance** for pinpoint accuracy.
5. Demonstrates **in-flight manoeuvrability** for dynamic targeting.
6. Compatible with **existing Pinaka launchers**, enabling platform flexibility.
7. Entirely **indigenously designed and manufactured**.
8. Enhances **long-range, low-collateral firepower capability**.

INSV KAUNDINYA

Recent Update: Vessel began maiden heritage voyage from Porbandar to Muscat



About

1. A naval sailing vessel inspired by 5th-century Ajanta ship depictions.

2. Built using **ancient stitched-ship wooden hull technique**.
3. Uses **coir rope, natural resin and wooden planks**, avoiding modern metal fasteners.
4. Represents India's **maritime heritage and ancient trade networks**.
5. Decorated with **Gandabherunda, Sun motifs and Harappan anchor symbolism**.
6. Designed to be **fully seaworthy for long-distance ocean navigation**.
7. Built by **Indian Navy with Ministry of Culture**.
8. Promotes **cultural diplomacy and maritime history awareness**.

AKASH-NG MISSILE SYSTEM

Recent Update: DRDO completed **User Evaluation Trials successfully**



About

1. Akash-NG is an **indigenous surface-to-air missile (SAM) system**.
2. Designed to intercept **aircraft, drones, cruise missiles and high-speed threats**.
3. Features **longer range and faster response** than legacy Akash.
4. Equipped with **indigenous radars and C2 systems**.
5. Demonstrates **high precision across varied operational scenarios**.
6. Provides **mobile and flexible air defence coverage**.
7. Enhances **survivability against modern aerial warfare threats**.

8. Strengthens **India's layered air defence architecture**.

EXERCISE DESERT CYCLONE-II 2025

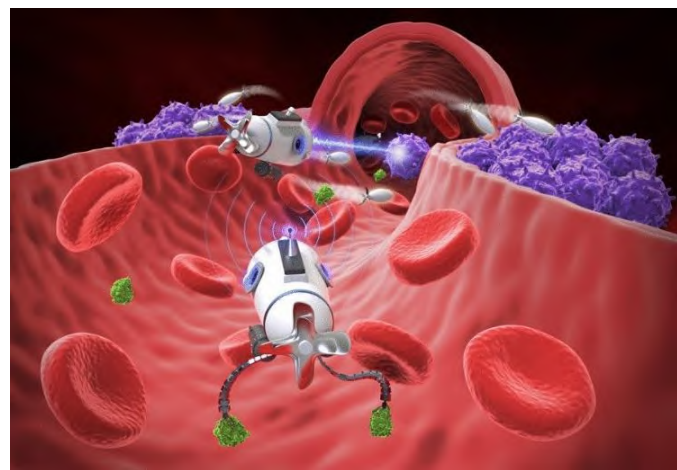
Recent Update: India-UAE joint military exercise underway in **Abu Dhabi**

About

1. Second edition of **bilateral India-UAE Army exercise**.
2. Focus on **sub-conventional operations under UN mandates**.
3. Includes **urban warfare and counter-terror training**.
4. Practices **heliborne missions and joint planning drills**.
5. Integrates **Unmanned Aerial Systems and Counter-UAS tactics**.
6. Improves **interoperability between mechanised infantry units**.
7. Enhances **peacekeeping and stability operations readiness**.
8. Strengthens **defence diplomacy and strategic partnership**.

NANOBOTS IN MEDICINE

Recent Update: IISc breakthrough won **NYAS-Tata Transformation Prize 2025**



About

1. **Magnetic nanobots** enable **targeted drug delivery to cancer cells**.
2. Coated with **therapeutic drugs for precise localised treatment**.

3. Can generate **magnetic hyperthermia (>42°C)** to destroy tumour cells.
4. Offer **deep tissue penetration** beyond conventional therapies.
5. Function as **drug carriers, imaging beacons and therapeutic tools**.
6. Made of **biocompatible silica and iron**.
7. Reduce **collateral damage to healthy tissues**.
8. Potential use in **cancer, dentistry, infections and regenerative medicine**.

BORDER ROADS ORGANISATION (BRO)

Recent Update: Defence Minister inaugurated **125 projects worth ₹5,000 crore**



About

1. BRO is a **premier infrastructure construction force under Ministry of Defence**.
2. Established in **1960** for strategic border connectivity.
3. Builds and maintains **roads, bridges, tunnels and airfields**.
4. Enhances **military mobility along China and Pakistan borders**.
5. Supports **remote area socio-economic development and tourism**.
6. Executes projects in **friendly foreign nations as infrastructure diplomacy**.
7. Plays key role in **disaster relief and rescue operations**.
8. Backbone of **strategic logistics and national security preparedness**.

REGIONAL LEVEL POLLUTION RESPONSE EXERCISE (RPREX-2025)

Recent Update: Indian Coast Guard conducted **RPREX-2025 off Mumbai coast to test oil spill preparedness**

About

1. A large-scale **pollution response drill** to ensure **swift and coordinated action against marine oil spills**.
2. Validates implementation of the **National Oil Spill Disaster Contingency Plan (NOSDCP)**.
3. Simulated **tanker–fishing boat collision causing crude oil spillage** in Arabian Sea.
4. Conducted in **two phases – tabletop planning and live sea exercise**.
5. Deployed **Pollution Control Vessels (PCVs), skimmers and containment booms**.
6. Tested **real-time communication and inter-agency coordination**.
7. Involved **port authorities, oil companies, coastal police and state agencies**.
8. Protects **marine ecology, coastal livelihoods and maritime trade infrastructure**.

INS ARIDAMAN

Recent Update: India set to commission **third indigenous SSBN under Arihant-class**

About

1. INS Aridaman is a **nuclear-powered ballistic missile submarine (SSBN)** under **Strategic Forces Command**.
2. Built under **Advanced Technology Vessel (ATV) Project** with over **90% indigenous components**.
3. Powered by **83 MW pressurised water reactor**, enabling **near-unlimited endurance**.
4. Equipped with SLBMs – **K-15 (750 km)** and **K-4 (3,500 km)** for strategic deterrence.
5. Features **anechoic tiles, advanced sonar and stealth enhancements**.
6. Provides **survivable second-strike capability** under India's **No First Use doctrine**.
7. Strengthens **nuclear triad (land–air–sea)**.
8. Boosts **Aatmanirbhar Bharat** in complex **nuclear naval technologies**.

INS TARAGIRI (PROJECT 17A STEALTH FRIGATE)

Recent Update: Indian Navy inducted **fourth Nilgiri-class stealth frigate built by MDL**

About

1. Taragiri is a **multi-mission stealth frigate** under **Project 17A**.
2. Designed for **air defence, anti-submarine and surface warfare roles**.
3. Equipped with **MF-STAR radar and MRSAM air defence missile system**.
4. Armed with **76 mm gun, CIWS, torpedoes and rockets**.
5. Features **Integrated Platform Management System (IPMS)** for automation.
6. Incorporates **advanced stealth shaping and reduced radar signature**.
7. Achieves **~75% indigenisation with MSME participation**.
8. Enhances **blue-water capability and maritime deterrence**.

AIRCRAFT HANSA-3 NG

Recent Update: India launched **first indigenous production-version pilot trainer aircraft**



About

1. Hansa-3 NG is a **lightweight indigenous trainer aircraft** developed by **CSIR-NAL**.
2. Built with **composite airframe**, ensuring durability and fuel efficiency.
3. Designed for **stable low-speed handling**, ideal for beginner pilots.
4. Features **bubble canopy and wide cockpit** for better visibility.

5. Equipped with **modern glass cockpit and digital avionics suite**.
6. Powered by **fuel-efficient Rotax engine** with low maintenance needs.
7. Includes **safety features like ELT and lightning protection**.
8. Promotes **self-reliance in civil aviation training ecosystem**.

DIVING SUPPORT CRAFT (DSC) A20

Recent Update: Indian Navy commissioned **first indigenously designed Diving Support Craft at Kochi**

About

1. DSC A20 is a **specialised vessel for underwater diving and salvage operations**.
2. Developed by **Titagarh Rail Systems Limited (TRSL)**.
3. Features **catamaran hull**, offering superior stability and deck space.
4. Displacement of **~390 tonnes**, suitable for coastal operations.
5. Equipped with **state-of-the-art diving and safety systems**.
6. Supports **inspection, repair and underwater maintenance tasks**.
7. Built as per **Naval Rules and IRS standards**.
8. Strengthens **indigenous maritime operational capability under Aatmanirbhar Bharat**.

HAMMER (AASM) PRECISION-GUIDED WEAPON

Recent Update: India signed pact with **Safran-BEL JV for domestic manufacturing**

About

1. HAMMER (AASM) is a **stand-off precision-guided air-to-ground weapon system**.
2. Converts **conventional bombs into high-accuracy smart munitions**.
3. Features **modular design with guidance kit and range-extension booster**.
4. Offers **multiple guidance modes – INS-GPS, IR and laser**.
5. Enables **launch from outside enemy air defence zones**.

- Achieves **high precision (CEP up to ~1–10 metres)**.
- Integrates with **Rafale and upcoming indigenous aircraft like Tejas**.
- Reduces **import dependence while enhancing precision strike capability**.

EXERCISE HARIMAU SHAKTI

Recent Update: India–Malaysia began **5th edition at Mahajan Field Firing Range, Rajasthan**

About

- A **bilateral Army exercise** to enhance **counter-insurgency and peacekeeping cooperation**.
- Involves **DOGRA Regiment (India) and Royal Malaysian Army units**.
- Focuses on **sub-conventional operations under UN Chapter VII mandate**.
- Includes **cordon-and-search, heliborne and urban combat drills**.
- Practices **counter-terror tactics and casualty evacuation procedures**.
- Emphasises **small-team coordination and joint mission planning**.
- Encourages **exchange of tactics, techniques and best practices**.
- Strengthens **defence diplomacy and interoperability**.

CHANAKYA DEFENCE DIALOGUE 2025

Recent Update: The President of India inaugurated **CDD-2025 in New Delhi**.

About

- CDD is an **annual defence and security dialogue platform**.
- It is organised by the **Indian Army and CLAWS**.
- The dialogue focuses on **modern warfare and defence technologies**.
- It brings together **military leaders, diplomats, and industry experts**.
- CDD is conducted as a **two-day conference**.

- It promotes **strategic partnerships and indigenisation**.
- Young scholars are actively engaged in the dialogue.

MH-60R SEAHAWK HELICOPTER

Recent Update: India finalised a deal with the US for **24 MH-60R helicopters** for the Navy.

About

- MH-60R is an **all-weather, multi-role naval helicopter**.
- It is manufactured by **Lockheed Martin, USA**.
- The helicopter is nicknamed **“Romeo”**.
- It excels in **anti-submarine warfare and surveillance**.
- It has an operational range of **around 400 km**.
- It is equipped with **Mk-54 torpedoes**.
- It strengthens **India’s maritime security capability**.

CIVIL NUCLEAR SECTOR IN INDIA (2025)

Recent Update: The Prime Minister indicated movement towards **opening civil nuclear sector to private players**.



About

- Nuclear energy falls under the **Union List** of the Constitution.
- The sector is governed by the **Atomic Energy Act, 1962**.
- Only **Central government PSUs** are allowed to operate nuclear plants.
- NPCIL** operates all **24 reactors** with **8.8 GW capacity**.

5. India follows a **closed fuel-cycle policy**.
6. India imports uranium mainly from **Kazakhstan and other partners**.
7. Targets include **22 GW by 2032** and **100 GW by 2047**.

PUSA DST-1

Recent Update: Pusa DST-1 was highlighted as a **climate-resilient rice variety**.

About

1. Pusa DST-1 is a **gene-edited rice variety**.
2. It is developed by **ICAR-IARI**.
3. It is an improved version of **MTU-1010**.
4. It performs well in **saline and alkaline soils**.
5. It yields **15–30% higher output** in stress conditions.
6. It supports **climate-resilient agriculture**.
7. It is suited for **southern Indian states**.

EXERCISE AUSINDEX (2025)

Recent Update: Indian Navy ship **INS Sahyadri** participated in **Exercise AUSINDEX 2025** in the Northern Pacific Ocean.

About

1. AUSINDEX is a **bilateral naval exercise between India and Australia** aimed at maritime cooperation.
2. It has been conducted **biennially since 2015**, alternating between Indian and Australian waters.
3. The exercise focuses on **advanced naval manoeuvres, surface warfare, and interoperability**.
4. It strengthens **Indo-Pacific maritime security and freedom of navigation principles**.
5. AUSINDEX complements other exercises like **Malabar and QUAD naval drills**.
6. Army cooperation is enhanced through **Exercise Austra Hind**.
7. Air Force engagement includes **Exercise Pitch Black**, Australia's multilateral air combat exercise.

S-500 SYSTEM

Recent Update: Russia's **S-500 Prometey** has gained attention as the world's most advanced **long-range air, missile, and anti-space defence system**, while India already operates the S-400.



About

1. The **S-500 system** is Russia's **next-generation integrated air defence platform**, designed to counter conventional and futuristic aerial threats.
2. It can intercept **fighter aircraft, ballistic missiles, hypersonic weapons, and even low-Earth-orbit satellites**, making it a multi-domain defence system.
3. The system is developed by **Almaz-Antey**, Russia's premier and state-owned air-defence manufacturer.
4. The S-500 can neutralise **ballistic missiles at ranges up to 600 km** and airborne targets up to **400 km**.
5. Its **reaction time of just 3–4 seconds** makes it nearly **twice as fast as the S-400 system**.
6. The system is capable of operating at **very high altitudes**, including near-space interception roles.
7. India currently operates the **S-400 system**, officially designated as **"Sudarshan Chakra"**, but not the S-500.

OPERATION PAWAN

Recent Update: The Indian Army Chief paid tribute to martyrs of **Operation Pawan** for the first time officially.

About

1. Operation Pawan was launched in **1987** following the **Indo-Sri Lanka Accord**.

2. It involved deployment of the **Indian Peace Keeping Force (IPKF)** in Sri Lanka.
3. The mission aimed to **disarm Tamil militant groups and stabilise the region**.
4. It was India's **first major overseas military operation after Independence**.
5. IPKF faced **intense guerrilla warfare** from the LTTE.
6. The operation highlighted **limitations of peace enforcement missions**.
7. It shaped India's future **foreign military engagement doctrine**.

TEJAS LCA Mk-1A

Recent Update: HAL plans to deliver **12 Tejas Mk-1A aircraft in 2025**, ramping production to 24 annually.

About

1. The **Light Combat Aircraft programme** was initiated in **1984** to replace MiG-21 aircraft.
2. Tejas Mk-1A is a **4.5-generation, single-engine, multirole supersonic fighter aircraft**.
3. Design leadership is provided by **DRDO's Aeronautical Development Agency (ADA)**.
4. The aircraft is manufactured by **Hindustan Aeronautics Limited (HAL)**.
5. It supports **air-to-air, air-to-surface, and precision-guided combat missions**.
6. Tejas Mk-1A features **AESA radar, advanced avionics, and mid-air refuelling**.
7. It strengthens **India's indigenous defence manufacturing and air power capability**.

AJEYA WARRIOR-25

Recent Update: The **8th edition of Exercise Ajeya Warrior** commenced in **Rajasthan (2025)**.

About

1. **Exercise Ajeya Warrior** is a **biennial joint military exercise** between the **Indian Army and British Army**.
2. It has been conducted regularly since **2011** under a **UN peacekeeping mandate**.
3. The exercise focuses on **counter-terrorism operations in semi-urban and urban environments**.

4. It enhances **interoperability, joint planning, and tactical coordination**.
5. The exercise reflects **strengthening defence cooperation** between **India and the UK**.
6. It complements other bilateral drills such as **Exercise Konkan (Naval)**.
7. The exercise improves preparedness for **peacekeeping and urban combat scenarios**.

VIKRAM-I LAUNCH VEHICLE

Recent Update: **Vikram-I**, India's first private orbital rocket, marks a major leap in **commercial space launch capability**.



About

1. Vikram-I is an **orbital-class launch vehicle** developed by **Skyroot Aerospace**.
2. Skyroot is a **Hyderabad-based private space start-up**.
3. The rocket is designed for **small satellite and rideshare missions**.
4. It can place **350 kg into Low Earth Orbit (LEO)**.
5. It can also deliver **260 kg into Sun-Synchronous Orbit (SSO)**.
6. Vikram-I uses an **all-carbon-fibre structure**, reducing weight significantly.
7. The rocket features **3D-printed engines**, lowering manufacturing costs and timelines.

THORIUM MOLTEN SALT REACTOR (TMSR)

Recent Update: China achieved the world's **first thorium-to-uranium fuel conversion** in an operational

molten salt reactor.

About

1. TMSR is a **fourth-generation advanced nuclear reactor system**.
2. It uses **molten salt instead of water** as a coolant.
3. The reactor operates at **high temperature and low pressure**, improving safety.
4. It uses **thorium fuel**, producing **less long-lived radioactive waste**.
5. A **passive safety mechanism** melts a frozen salt plug during overheating, shutting the reactor automatically.
6. TMSRs extract **more usable energy from fuel**, improving efficiency.
7. India is developing its own **Indian Molten Salt Breeder Reactor (IMSBR)**.

NATIONAL ACTION PLAN ON ANTIMICROBIAL RESISTANCE 2.0 (NAP-AMR 2.0)

Recent Update: The **Ministry of Health and Family Welfare** launched **NAP-AMR 2.0 (2025–2029)**.

About

1. **NAP-AMR 2.0** is India's updated **five-year national strategy** to combat **antimicrobial resistance (AMR)**.
2. It adopts a **One Health approach**, integrating **human health, animal health, agriculture, and environment** sectors.
3. The plan builds upon **gaps identified** in the earlier **NAP-AMR (2017–2021)**.
4. It focuses on strengthening **surveillance systems, infection prevention, and rational antimicrobial use**.
5. The strategy promotes **research, innovation, and development of new diagnostics and treatments**.
6. **Capacity building** of healthcare workers and **public awareness** form key pillars.
7. AMR is recognised as a major threat to **public health, food security, and economic stability**.

AFRICAN SWINE FEVER (ASF)



Recent Update: **Assam Government** banned **inter-district movement of live pigs** to contain **ASF spread**.

About

1. **African Swine Fever** is a **highly contagious and fatal viral disease** affecting **domestic and wild pigs**.
2. It is caused by a **large DNA virus** belonging to the **Asfarviridae** family.
3. The disease originated in **sub-Saharan Africa** and has spread across **Asia and Europe**.
4. In India, ASF was first reported in **Assam and Arunachal Pradesh in 2020**.
5. Transmission occurs through **direct contact, contaminated feed, ticks, and infected bodily fluids**.
6. There is **no effective vaccine or cure**, making **culling** the primary containment strategy.
7. ASF is **non-zoonotic** and poses **no threat to human health**.

SENTINEL-6B SATELLITE

Recent Update: **Sentinel-6B** was launched from **Vandenberg Space Force Base, USA**, to track **sea-level rise**.

About

1. **Sentinel-6B** is a joint mission of **NASA, NOAA, and the European Space Agency (ESA)**.
2. It provides **high-precision measurements of global sea-level changes** due to **climate change**.
3. The satellite operates in a **non-sun-synchronous orbit**, moving longitudinally around Earth.
4. It travels at about **7.2 km per second** and completes one orbit every **112 minutes**.

5. Sentinel-6B can detect **sea-level variations** with accuracy up to **one inch**.
6. It covers **over 90% of global oceans**, ensuring comprehensive monitoring.
7. The satellite has an expected **operational lifespan of about 5.5 years**.

EXERCISE POORVI PRACHAND PRAHAR (2025)

Recent Update: Exercise Poorvi Prachand Prahar-2025 was conducted in **Mechuka, Arunachal Pradesh**, near the Line of Actual Control.

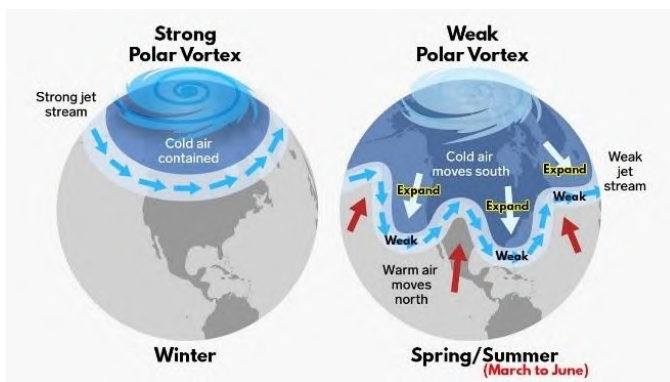
About

1. **Exercise Poorvi Prachand Prahar** is a **tri-service military exercise** involving the **Indian Army, Navy, and Air Force**.
2. It aims to enhance **joint warfighting capability, inter-service coordination, and operational synergy**.
3. The exercise focuses on **high-altitude warfare scenarios** in challenging Himalayan terrain.
4. It emphasizes **integration of surveillance, firepower, logistics, and communication systems**.
5. The drill builds upon previous exercises like **Bhala Prahar (2023)** and **Poorvi Prahar (2024)**.
6. It showcases India's capability for **rapid mobilisation and precision strikes** in eastern sectors.
7. The exercise strengthens **deterrence posture along India's eastern borders**.

- Satellites may experience **electronic damage, navigation errors, and orbital disturbances.**
- Severe storms generate vivid **auroras far beyond traditional polar regions.**

POLAR VORTEX

Recent Update: A polar vortex–driven winter storm brought sub-zero temperatures across multiple US states.



About

- The polar vortex is a large region of **low pressure and extremely cold air** around the poles.
- It exists in both the **troposphere and stratosphere**, strongest during winter months.
- Reduced solar heating at the poles strengthens **cold air circulation and fast-moving winds.**
- A weakened vortex can cause the **jet stream to become wavy**, allowing Arctic air southward.
- Sudden Stratospheric Warming events may **split or destabilise the vortex structure.**
- Arctic amplification reduces temperature gradients, increasing **vortex instability and disruptions.**
- Local impacts include **extreme cold waves, heavy snowfall, and power grid stress.**
- Globally, vortex shifts contribute to **weather volatility and contrasting extreme conditions.**



BHAIRAV BATTALION

Recent Update: The Indian Army has operationalised the **Bhairav Battalion** as a rapid-response hybrid warfare combat unit.

About

- Bhairav Battalion is a high-speed **offensive combat formation** designed for hybrid and special operations.
- It functions under **Corps and Division-level formations** within the Indian Army structure.
- These battalions are positioned along **sensitive borders like Rajasthan, Jammu, Ladakh and the Northeast.**
- The unit bridges the gap between **Para Special Forces and regular infantry units.**
- Each battalion consists of about **200–250 highly trained soldiers** for compact effectiveness.
- It specialises in **drone warfare, reconnaissance, rapid raids and electronic disruption.**
- Designed for hybrid warfare, it integrates **ground action with cyber-electronic support systems.**
- It is linked to the Army's expanding **one lakh-plus drone operator ecosystem.**

LONG-RANGE ANTI-SHIP HYPERSONIC GLIDE MISSILE (LRASHM)

Recent Update: DRDO is advancing trials of the **LRASHM** to enhance India's maritime deterrence capability.

About

- LRASHM is an indigenous **hypersonic glide missile** designed for long-range naval strike missions.
- It is developed by **DRDO for the Indian Navy** to meet maritime strike requirements.
- The missile enhances **Anti-Access/Area Denial (A2/AD) capability** in the Indian Ocean Region.

4. It operates at **hypersonic speeds up to Mach 10**, drastically reducing enemy reaction time.
5. The missile has an operational range of around **1,500 kilometres**, with future expansion planned.
6. It uses a **boost-glide architecture with solid propulsion and manoeuvrable glide phase**.
7. Advanced guidance combines **inertial navigation, satellite aid and active radar seekers**.
8. It can be deployed from **mobile land-based launchers, with ship and air variants planned**.

SURYASTRA ROCKET SYSTEM

Recent Update: The Indian Army signed a ₹293-crore contract for induction of the **Suryastra rocket system**.



About

1. Suryastra is India's first **indigenous universal multi-calibre long-range rocket launcher system**.
2. Manufactured by **NIBE Ltd. with Elbit Systems collaboration**, adapted from Israeli PULS technology.
3. It enhances the Army's **deep-strike and stand-off firepower capability**.
4. The system supports strike ranges of **150 km and 300 km**.
5. It can launch multiple calibres including **122 mm, 160 mm and 306 mm rockets**.
6. It demonstrated a **Circular Error Probable below 5 metres** in trials.
7. The launcher is adaptable to **4x4, 6x6 and 8x8 wheeled chassis platforms**.
8. It was inducted under **emergency procurement powers** for rapid operational deployment.

RAMJET-POWERED 155 MM ARTILLERY SHELLS

Recent Update: The Indian Army is set to become the first force to deploy **ramjet-powered 155 mm artillery shells**.



About

1. Ramjet-powered shells are advanced projectiles fitted with an **air-breathing ramjet propulsion module**.
2. Unlike rockets, ramjets use **atmospheric oxygen instead of carrying an oxidiser**.
3. The shell is launched at around **Mach 2 from conventional artillery guns**.
4. Ram compression naturally compresses incoming air to enable **fuel ignition and sustained thrust**.
5. Continuous propulsion allows the shell to **extend range beyond traditional ballistic limits**.
6. This technology significantly enhances **long-range artillery precision and lethality**.
7. It improves stand-off capability against **high-value enemy targets**.
8. The innovation strengthens India's **artillery modernisation and technological edge**.

MAN PORTABLE ANTI-TANK GUIDED MISSILE (MPATGM)

Recent Update: DRDO successfully tested the **third-generation MPATGM** with top-attack capability against moving targets.

About

1. MPATGM is a **fire-and-forget, shoulder-launched anti-tank guided missile system**.
2. Developed by **DRDO's Defence Research and Development Laboratory** in Hyderabad.
3. It is designed to destroy **modern main battle tanks and armoured vehicles**.

- The missile uses an **Imaging Infrared (IIR) homing seeker** for day-night targeting.
- It features a **top-attack mode**, striking the weakest armour section of tanks.



- The tandem HEAT warhead defeats **reactive armour and penetrates primary armour layers**.
- It offers an engagement range of **200 to 4,000 metres**.
- The system enhances infantry capability under **all-weather and low-visibility conditions**.

PRALAY MISSILE

Recent Update: DRDO conducted a successful **salvo launch of two Pralay missiles** from the same launcher.

About

- Pralay is an indigenous **solid-propellant quasi-ballistic surface-to-surface missile**.
- It is designed for **high-precision conventional strikes against diverse targets**.
- The missile has a strike range between **150 km and 500 km**.
- Its quasi-ballistic trajectory makes **interception by air defence systems difficult**.
- Solid propellant ensures **quick launch readiness and operational reliability**.
- It features advanced **guidance and navigation systems for high accuracy**.
- The missile can carry **multiple types of conventional warheads**.
- Salvo launch capability enhances **saturation attack and battlefield dominance**.

POLAR SATELLITE LAUNCH VEHICLE (PSLV)

Recent Update: ISRO's **PSLV-C62 mission** faced failure due to an anomaly in its third stage.

About

- PSLV is India's third-generation **orbital launch vehicle and ISRO's workhorse rocket**.
- It is primarily designed to place satellites into **Polar and Sun-Synchronous Orbits**.
- The first stage uses a **solid S139 motor with strap-on boosters**.
- The second stage employs the **Vikas liquid engine for controlled thrust**.
- The third stage provides high-speed boost using a **solid S7 motor**.
- The fourth stage ensures **precision orbit placement with liquid engines**.
- PSLV launches Earth observation, navigation and **communication satellites**.
- It forms the backbone of India's **space commercialisation through NSIL**.

OPERATION MEGABURU

Recent Update: Operation Megaburu led to the elimination of 16 Maoists in Jharkhand's West Singhbhum district.

About

- Operation Megaburu is a large-scale **counter-insurgency operation against CPI (Maoist)**.
- It was launched in **January 2026 in the Saranda forest region**.
- The operation involved **CoBRA units of CRPF and Jharkhand Police**.
- Around **1,500 commandos** were deployed for deep-jungle combat missions.
- It targeted top Maoist leaders including **Central Committee members**.
- The operation aimed to dismantle **remaining Maoist strongholds in Singhbhum**.
- It aligns with the Government's goal to **eliminate Naxalism by March 2026**.
- It marked the **largest single encounter recovery of Maoist bodies in Jharkhand**.

CYBERCRIME AND THE CRISIS OF GLOBAL GOVERNANCE

Recent Update: India declined to sign the **UN Convention against Cybercrime (2024)**, citing governance concerns.

About

1. The crisis reflects a widening gap between **global cyber norms and national regulatory priorities**.
2. Nations agree on broad objectives like **safe AI and combating child abuse material**.
3. Implementation differences have led to **polycentric and overlapping cyber governance systems**.
4. India has seen a surge in **AI-powered cyberattacks including deepfakes and phishing**.
5. Modern ransomware involves **multi-stage extortion and psychological coercion tactics**.
6. Cyber fraud imposes serious **economic losses and systemic financial risks**.
7. The UN Convention promotes **universal criminalisation and electronic evidence sharing**.
8. It establishes **24x7 cooperation networks and human rights safeguards**, though enforcement varies.

BRAHMOS MISSILE

Recent Update: The Indian Army recently carried out a successful combat launch of the **BrahMos supersonic cruise missile**.



About

1. BrahMos is a long-range **supersonic cruise missile** jointly developed by DRDO and Russia's NPOM.
2. The missile is named after the **Brahmaputra and Moskva rivers**, symbolising Indo-Russian cooperation.

3. It was derived from Russia's **P-800 Oniks (Yakhont) missile platform**.
4. It operates on a **two-stage propulsion system** with solid booster and liquid ramjet engine.
5. After India joined the **Missile Technology Control Regime (MTCR)** in 2016, its range increased to 450–500 km.
6. It carries a **200–300 kg warhead** and cruises at speeds close to Mach 3.
7. The missile follows **"fire and forget" technology**, requiring no post-launch guidance.
8. It is deployed by all three services—**Army, Navy and Air Force**, enhancing joint deterrence capability.

AKASH-NG MISSILE SYSTEM

Recent Update: DRDO successfully completed **User Evaluation Trials of the Akash-NG system**.

About

1. Akash-NG is a next-generation **surface-to-air missile system** for air defence protection.
2. It is developed by **DRDO and produced by Bharat Dynamics Limited**.
3. The system has an engagement range of **up to 30 km and altitude of 18 km**.
4. It can engage **multiple aerial targets simultaneously**, enhancing layered air defence capability.
5. The missile weighs around **350 kilograms**, nearly half of the original Akash version.
6. It features an indigenous **Radio Frequency seeker and dual-pulse solid rocket motor**.
7. The system integrates fully indigenous **Command, Control and Communication systems**.
8. It strengthens India's capability against **fighter aircraft, drones and cruise missiles**.

K-4 MISSILE

Recent Update: India successfully tested the **K-4 submarine-launched ballistic missile** from INS Arighaat.

About

1. K-4, also known as **Kalam-4**, is a nuclear-capable intermediate-range ballistic missile.
2. It is indigenously developed by **DRDO for deployment on Arihant-class submarines**.
3. The missile has a strike range of about **3,500 kilometres**, significantly higher than K-15.
4. It can carry a **payload of up to two tonnes**, including nuclear warheads.
5. It uses a **cold-launch mechanism**, ejecting underwater before engine ignition.
6. The missile strengthens India's **credible minimum deterrence posture**.
7. It enhances the sea-based leg of India's **nuclear triad strategy**.
8. Deployment on SSBNs ensures **second-strike capability and strategic stability**.

PINAKA ROCKET SYSTEM

Recent Update: DRDO successfully conducted the maiden flight test of the **Pinaka Long Range Guided Rocket (LRGR-120)**.

About

1. Pinaka is an indigenously developed **Multi Barrel Rocket Launcher (MBRL) system**.
2. It was first used effectively during the **Kargil War of 1999**.
3. The upgraded versions offer ranges between **60 and 120 kilometres**.
4. Its navigation system is integrated with **Indian Regional Navigation Satellite System (IRNSS)**.
5. Pinaka Mark I and Mark II provide **improved range and strike capability**.
6. The LRGR-120 variant offers **precision-guided long-range engagement up to 120 km**.
7. The system is entirely based on **indigenous technologies and manufacturing ecosystem**.
8. Armenia became the first export customer of **Indian-made Pinaka systems**.

INS VAGHSHEER

Recent Update: INS Vaghsheer was commissioned into the Indian Navy in 2025.



About

1. INS Vaghsheer is the sixth submarine of the **Kalvari-class (Scorpene-class)** under Project-75.
2. It is built by **Mazagon Dock Shipbuilders Limited** with French technology transfer.
3. The submarine is named after the **sandfish predator of the Indian Ocean**.
4. It enhances India's conventional underwater **deterrence and maritime security posture**.
5. It features advanced **stealth characteristics and torpedo launch capabilities**.
6. The platform supports anti-surface and **anti-submarine warfare missions**.
7. It strengthens India's naval presence in the **Indian Ocean Region**.
8. Commissioning reflects progress in **indigenous submarine-building capability**.

HERON MK-II UAV

Recent Update: India signed emergency procurement contracts for additional **Heron MK-II UAVs**.



About

1. Heron MK-II is a **Medium-Altitude Long-Endurance unmanned aerial vehicle**.
2. It is developed by **Israel Aerospace Industries (IAI)**.

3. The UAV offers endurance up to **45 hours** and altitude up to 35,000 feet.
4. It has an operational range exceeding **1,000 kilometres**.
5. It supports **Electronic Intelligence and Communications Intelligence systems**.
6. It enhances real-time surveillance and **border monitoring capability**.
7. Satellite-linked variants enable **beyond-line-of-sight operations**.
8. It strengthens India's intelligence, surveillance and reconnaissance ecosystem.

DHRUV NG HELICOPTER

Recent Update: HAL conducted the maiden flight of the **Dhruv New Generation helicopter** in Bengaluru.

About

1. Dhruv NG is an upgraded version of the **Advanced Light Helicopter (ALH-Dhruv)**.
2. It is indigenously manufactured by **Hindustan Aeronautics Limited (HAL)**.
3. The helicopter features **twin-engine configuration with indigenous Shakti engines**.
4. It supports day-night and **all-weather operational capability**.
5. The platform offers enhanced **Cat-A performance and modern avionics systems**.
6. It is suitable for **civil, military and disaster-relief operations**.
7. The helicopter improves India's **rotary-wing self-reliance initiative**.
8. It aligns with the broader vision of **Atmanirbhar Bharat in defence aviation**.

INDIA'S DEFENCE INDUSTRY

Recent Update: The **Defence Minister reiterated India's commitment to achieving Aatmanirbharta in defence manufacturing** and transforming the country into a **global defence production hub**.

About

1. India's **domestic defence production has increased significantly from ₹46,425 crore in 2014 to around ₹1.51 lakh crore in FY2025**, reflecting strong policy support for indigenous manufacturing.

2. **Defence Public Sector Undertakings (DPSUs)** remain the backbone of production, contributing nearly **77% of India's total defence manufacturing output**.
3. India's **defence exports have expanded rapidly from ₹686 crore in 2013–14 to ₹23,622 crore in 2024–25**, indicating growing global demand for Indian defence products.
4. The **private sector has emerged as a major contributor**, accounting for **₹15,233 crore of exports in FY2024–25**, compared to **₹8,389 crore from DPSUs**.
5. India now exports defence equipment to **more than 100 countries**, with **USA, France, and Armenia among the major buyers**.
6. Key export products include **bulletproof jackets, patrol boats, radars, Chetak helicopters, Dornier Do-228 aircraft, and torpedoes**.
7. Defence technology startups are expanding rapidly, with **funding increasing 61 times from ₹27 crore in 2016 to ₹1,653 crore in 2025**.
8. Total investments in military-tech startups have reached **₹5,248 crore**, strengthening India's **defence innovation ecosystem**.

QUANTUM TECHNOLOGIES IN ARMED FORCES

Recent Update: The **Chief of Defence Staff released the Military Quantum Mission Policy Framework**, outlining a roadmap for integrating quantum technologies into India's armed forces.

About

1. The framework aims to achieve **technological dominance in future warfare by integrating advanced quantum technologies across the Army, Navy, and Air Force**.
2. It promotes **jointness and integration among the tri-services**, ensuring coordinated development and deployment of emerging technologies.
3. The initiative aligns with India's **National Quantum Mission (NQM)**, which has a **budget outlay of about ₹6,000 crore for the period 2023–2031**.
4. The framework emphasizes **civil-military fusion**, encouraging collaboration between **defence forces, academic institutions, research laboratories, and private industry**.

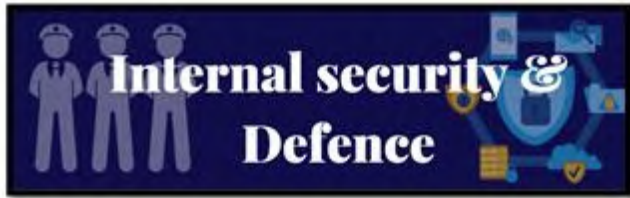
5. Four core pillars of the program include **Quantum Communication, Quantum Computing, Quantum Sensing and Metrology, and Quantum Materials and Devices**.
6. Quantum navigation technologies using **atomic interferometry and super-cooled atoms** can enable **highly accurate navigation systems for submarines and missiles without relying on GPS signals**.
7. **Quantum sensors such as magnetometers and gravimeters** can detect extremely small magnetic or gravitational anomalies, enabling **detection of hidden submarines or underground structures**.
8. Quantum-enabled AI and imaging systems can support **autonomous drones, faster battlefield decision-making, and imaging through fog, smoke, or darkness**, significantly improving operational capabilities.

LONG RANGE ANTI-SHIP HYPERSONIC MISSILE (LR-AShM)

Recent Update: The **Defence Research and Development Organisation (DRDO)** showcased the **Long Range Anti-Ship Hypersonic Missile (LR-AShM)** during the **77th Republic Day parade**.

About

1. **LR-AShM** is India's **first long-range hypersonic glide missile designed to meet coastal defence requirements of the Indian Navy**.
2. The missile has an operational **range of about 1,500 km and can strike both static and moving maritime targets**.
3. It features **indigenous avionics systems and high-precision sensors**, enhancing targeting accuracy and operational reliability.
4. The missile follows a **quasi-ballistic flight trajectory**, reaching peak speeds of **Mach 10 and maintaining an average speed of Mach 5**.
5. Its propulsion system uses a **two-stage solid fuel booster**, after which the missile enters an **unpowered hypersonic glide phase with maneuvering capability**.
6. The glide phase allows the missile to perform **skipping manoeuvres that enhance range and complicate interception by enemy air defence systems**.
7. The missile flies at **low altitudes and extremely high speeds**, making it difficult for enemy radars and missile defence systems to detect and intercept.
8. The development of hypersonic missiles strengthens India's **maritime strike capability and deterrence against adversaries in the Indo-Pacific region**.



DORNIER 228 AIRCRAFT

Recent Update: Continued deployment in **maritime surveillance, transport and coastal security roles**

About

1. **Dornier 228** is a **twin-engine turboprop STOL aircraft used for transport, surveillance, and special missions.**
2. Originally developed by **Dornier GmbH (Germany)** and now manufactured in India by **HAL, Kanpur.**
3. Designed as a **light commuter aircraft carrying 15–19 passengers or equivalent cargo loads efficiently.**
4. Equipped with **turboprop engines offering durability, fuel efficiency, and high performance.**
5. Features **Short Take-Off and Landing (STOL) capability**, enabling operations on short and unpaved airstrips.
6. Has **high endurance (~5.5–6 hours)** suitable for long surveillance missions.
7. Equipped with **advanced maritime surveillance tools like 360° radar, IR sensors, and real-time datalink.**
8. Widely used in **coastal surveillance, border security, search & rescue, and logistics operations.**

MILITARY EXERCISES IN NEWS

Recent Update: Multiple joint exercises highlight **India's growing defence cooperation and interoperability focus**

About

1. **Exercise Khanjar** is a **bilateral India–Kyrgyzstan Special Forces exercise held in Assam** focusing on counter-terror operations.
2. **Exercise Agni Pariksha** enhances **coordination between Indian Army and ITBP** in artillery operations.
3. **Exercise Vayu Shakti-2026** is a major **IAF firepower demonstration showcasing air combat capability and precision strikes.**

4. India–Thailand exercise strengthens **maritime air combat and Indo-Pacific security cooperation.**
5. **Exercise Dharma Guardian** is a **India–Japan joint military exercise focusing on urban warfare and interoperability.**
6. **Exercise Vajra Prahar** is a **India–USA Special Forces exercise aimed at improving joint operations in mountainous terrain.**
7. These exercises enhance **operational synergy, joint training, and modern warfare preparedness.**
8. Reflect India's strategy of **defence diplomacy under Act East Policy and Indo-Pacific engagement.**

MILAN 2026 NAVAL EXERCISE

Recent Update: Largest edition with **participation of 74 nations at Visakhapatnam**

About

1. **MILAN** is a **multilateral naval exercise hosted by the Indian Navy** to enhance maritime cooperation.
2. Conducted in **Visakhapatnam (2026)** with participation from **74 countries including ASEAN nations.**
3. Aims to strengthen **collective security and interoperability in the Indo-Pacific region.**
4. Includes **Sea Phase exercises like Anti-Submarine Warfare, Air Defence, and Search & Rescue operations.**
5. Features **International Fleet Review and IONS Conclave of Chiefs.**
6. Promotes **defence diplomacy and strategic engagement among friendly navies.**
7. Aligns with **India's Act East Policy and MAHASAGAR vision.**
8. Showcases **indigenous naval platforms like INS Vikrant and advanced destroyers.**

AGNI-3 BALLISTIC MISSILE

Recent Update: Successfully tested in 2026 validating **strategic deterrence capability**

About

1. **Agni-3** is an **Intermediate-Range Ballistic Missile (IRBM)** with **~3000 km range.**

2. Developed by **DRDO** and deployed under **Strategic Forces Command**.
3. Forms a key component of **India's nuclear deterrence strategy**.
4. Designed to provide **credible minimum deterrence and second-strike capability**.
5. Equipped with **advanced inertial navigation system** ensuring high accuracy.
6. Uses **two-stage solid fuel propulsion system**.
7. Can carry **nuclear or conventional warheads**.
8. Launchable via **road-mobile platforms** enhancing survivability and flexibility.

LCH PRACHAND

Recent Update: Strengthening India's **high-altitude combat capabilities in Himalayan region**

About

1. **LCH Prachand** is India's **first indigenously developed light combat attack helicopter**.
2. Developed by **Hindustan Aeronautics Limited (HAL)** under LCH programme.
3. Designed for **high-altitude operations (above 5000 m)**, especially in **Siachen and Ladakh regions**.
4. Capable of **air-to-air and air-to-ground combat** including anti-armour missions.
5. Features **stealth design with low radar cross-section and IR suppression**.
6. Equipped with **20mm gun, rockets, ATGM, and air-to-air missiles**.
7. Includes **glass cockpit, helmet-mounted display, and electronic warfare suite**.
8. Enhances India's **indigenous defence manufacturing under Atmanirbhar Bharat**.

PRAHAAR ANTI-TERROR POLICY

Recent Update: Introduced as India's **first integrated national counter-terrorism framework**

About

1. **Prahaar Policy** is a **doctrine-level national strategy for counter-terrorism** in India.
2. Follows a **whole-of-government and whole-of-society approach** combining multiple agencies.

3. Aims to **prevent, respond to, and recover from terrorism threats effectively**.
4. Focuses on **disrupting terror ecosystems** including **financing, recruitment, and logistics**.
5. Based on **seven pillars (PRAHAAR): Prevention, Response, Aggregation, Human rights, Attenuation, Alignment, Recovery**.
6. Emphasises **proactive intelligence and pre-emptive action over reactive policing**.
7. Incorporates **technology-based security** including **cyber, drones, dark web and crypto threats**.
8. Ensures **human rights safeguards, legal due process, and international cooperation**.

INCREASED CAPITAL SPENDING FOR THE DEFENCE SECTOR

Recent Update: Union Budget 2026–27 announced **15.2% hike with 21.8% rise in capital outlay**

About

1. **Capital expenditure in defence** focuses on **modernisation and acquisition of advanced military assets like jets, submarines, and weapons systems**.
2. For FY 2026–27, capital outlay increased to **₹2,19,306 crore**, reflecting a shift towards **technology-driven warfare capability**.
3. A major need is **replenishment of war reserves**, especially ammunition and precision systems after recent operations.
4. It addresses **two-front threat challenges**, particularly along borders with **China and Pakistan**.
5. Strengthens **maritime security in the Indian Ocean Region** through projects like **submarines and naval expansion**.
6. Enables investment in **emerging domains like AI, cyber warfare, and unmanned systems**.
7. Improves **border infrastructure** such as **roads, tunnels, and logistics** for **rapid troop mobilisation**.
8. Challenges include **high manpower costs, import dependency, and limited domestic absorption capacity** for large projects.

CYBERCRIME IN INDIA

Recent Update: Rise in **AI-driven frauds, digital arrests, and cross-border cybercrime networks**

About

1. **Cybercrime** involves **illegal activities using digital devices, networks, and internet platforms targeting individuals and institutions.**
2. It has evolved from **simple phishing to sophisticated AI-based scams like deepfakes and sextortion.**
3. Driven by **increased internet penetration, especially among new rural and first-time users.**
4. Use of **Artificial Intelligence and deepfake technology enables highly convincing impersonation frauds.**
5. Challenges include **low FIR conversion, jurisdictional issues, and anonymity via VPNs and encryption.**
6. **Cross-border scam networks and mule bank accounts complicate enforcement mechanisms.**
7. Shortage of **cyber forensic experts and social stigma reduces reporting of crimes like sextortion.**
8. Solutions include **AI-based detection, international cooperation, cyber awareness, and strengthening critical infrastructure security.**

DECLINING NAXALISM IN INDIA

Recent Update: Surrender of top Maoist leader **Devuji** signals **weakening of CPI (Maoist)**

About

1. **Naxalism (Left-Wing Extremism)** is an **armed insurgency aiming to overthrow the state through guerrilla warfare.**
2. Once spread across a wide **“Red Corridor”,** now reduced to **isolated pockets in Bastar and Jharkhand-Bihar region.**
3. Decline due to **leadership crisis caused by arrests, deaths, and surrenders of top commanders.**
4. Government adopted **aggressive security strategy through forces like Greyhounds and CoBRA units.**

5. **Improved infrastructure like roads and mobile connectivity reduced insurgent safe zones.**
6. Use of **technology such as drones and intelligence systems enhanced targeted operations.**
7. Key initiatives include **Operation SAMADHAN, Aspirational District Programme, and Surrender Policy.**
8. Remaining challenges include **hardened forest pockets, governance deficits, and inter-state coordination gaps.**