

Monthly Defence Current Affairs

September 2025

Exercise Yudh Abhyas 2025

- An Indian Army contingent reached in Fort Wainwright, Alaska, USA, & participated in the **21st edition** of the India-USA Joint Military Exercise Yudh Abhyas 2025, held from 1st to 14th September 2025.
- The Indian contingent, comprising personnel from a battalion of the Madras Regiment, trained alongside soldiers from the 1st Battalion, 5th Infantry Regiment "Bobcats" of the Arctic Wolves Brigade Combat Team, 11th Airborne Division of the USA.
- In addition, subject-matter experts from both armies will conduct working groups on critical domains such as UAS and Counter-UAS operations, information warfare, communications and logistics.



BHEL To Manufacture Radar Domes

- Bharat Heavy Electricals Limited (BHEL), one of India's largest engineering and manufacturing public sector enterprises, has taken a significant step toward strengthening the nation's defence capabilities by entering into a technology transfer licence agreement with the Defence Metallurgical Research Laboratory (DMRL), Hyderabad, a premier facility of the DRDO.

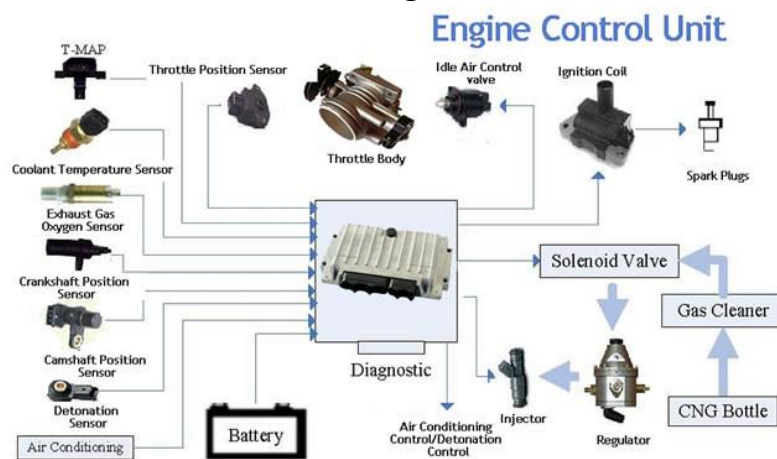
- The partnership focuses on the manufacturing of radar domes, also referred to as Radomes, which are critical aerospace components used to protect sensitive seeker-based sensors in missile systems.
- These domes not only serve as a physical shield against adverse environmental conditions but also play a vital role in ensuring that electromagnetic signals and radar waves can pass through without distortion, allowing missile seekers to function with high accuracy and reliability.
- Under the agreement, DMRL has transferred to BHEL the advanced technology required for producing fused silica-based Radomes using cold isostatic pressing (CIP) and sintering techniques.
- Fused silica is a highly specialised material known for its exceptional thermal stability, very low dielectric loss, and superior transparency to electromagnetic waves over a wide frequency range.



Axiscades Bags Order Worth Rs 150 Crore In Defence Space

- Axiscades has bagged a new order worth Rs 150 crore in the defence space. Subsidiary Mistral Solutions has secured a significant new order from Combat Aircraft Systems Development & Integration Centre (CASDIC), DRDO, Ministry of Defence, Axiscades said in an exchange filing.
- The order is for the development of 10 Electronic Control Units for the cooling system for the Su-30 MKI (fighter aircraft) upgrade.

- It was awarded for prototype development and will be followed by a forecast production order for an estimated 600 (Electronic Control Units), with a value of Rs 150 crore over a period of five years.
- Bengaluru-based Axiscades is a leading end-to-end engineering and technology solutions provider, catering to sectors like energy, heavy engineering, aerospace, defence, and automotive, among others.



S, C, O — PM Modi's Three-Letter Message

- Prime Minister Narendra Modi has a knack for distilling complex strategies into crisp phrases. At the 25th Shanghai Cooperation Organisation (SCO) Summit in Tianjin, he did it again: India's regional vision rests on three letters--S, C, O.
- **Security. Connectivity. Opportunity.**
- On the surface, it was a diplomatic speech. Beneath that, it was a strategic message, aimed not only at SCO members but also at the wider geopolitical audience watching closely.
- Security first, no exceptions
- For Modi, the priority is clear: security underpins development. "Security, peace and stability are the basis of development of any country. But terrorism, separatism and extremism are big challenges in this path," he told fellow leaders.



Exercise Maitree – XIV

- The **14th edition** of the **India - Thailand** joint military Exercise MAITREE-XIV commenced with a grand opening ceremony at Joint Training Node (JTN), **Umroi, Meghalaya**.
- The exercise is being conducted from 1st to 14th September 2025.
- The bilateral exercise is part of the ongoing military-to-military exchange programme between the two countries and aims to enhance cooperation, interoperability and mutual understanding between the Indian Army and Royal Thai Army.
- The 13th edition of the exercise was held at Fort Vachiraprakan in Tak Province, Thailand.
- The Indian Army contingent comprising 120 personnel, is being represented by a Battalion of the **Madras Regiment**. The Royal Thai Army contingent comprising 53 personnel is represented by the 1st Infantry Battalion, 14th Infantry Brigade.
- Exercise MAITREE, instituted in 2006, is one of the important joint training exercises between India and Thailand.



Kalam-250 Solid Rocket Motor

- The Kalam-250 solid rocket motor, developed by **Skyroot Aerospace**, represents a breakthrough in India's private spaceflight capabilities, standing out as the largest and most advanced propulsion system successfully tested by the private sector in collaboration with ISRO.
- Fired for the first time in March 2024 at the Satish Dhawan Space Centre, Sriharikota, the stage-two motor is designed using cutting-edge high-strength carbon composite materials that provide exceptional structural robustness while keeping mass low—an essential factor for launch efficiency.
- It incorporates a sophisticated Ethylene-Propylene-Diene Terpolymer (EPDM) thermal protection system (TPS), enabling it to endure extreme thermal and mechanical stresses encountered during lift-off and high-velocity atmospheric flight.
- Another standout feature is its advanced thrust vector control system, which integrates a carbon ablative flex nozzle paired with electro-mechanical actuators to deliver precision steering and optimized **trajectory management**.



What Is Vikram-3201 Chip

- India's semiconductor journey reached a decisive milestone at SEMICON India 2025, when Union Minister for Electronics and IT, Ashwini Vaishnaw, presented Prime Minister Narendra Modi with the Vikram-3201 — a cutting-edge 32-bit microprocessor designed and developed entirely within India.
- This achievement represents a turning point in India's pursuit of technological self-reliance, particularly in critical sectors such as space electronics, defence, and high-reliability applications, where trust in foreign technology is both costly and limited.
- It holds the distinction of being the first indigenously developed 32-bit processor qualified for use in the hostile environment of space launch vehicles, where extreme temperature variations, radiation, and high reliability are non-negotiable requirements.
- The chip has been validated for operations under extreme conditions, performing reliably across a temperature range of -55°C to $+125^{\circ}\text{C}$. Its primary applications lie in navigation, control, and mission management systems of India's space vehicles, where any computational failure can jeopardize an entire mission.
- The development of Vikram-3201 is rooted in India's earlier successes. Since 2009, ISRO has relied on the **VIKRAM1601**, a 16-bit processor, as a fundamental component of its launch vehicle electronics.

- Key advancements include support for 64-bit floating-point arithmetic, enhancing its precision and performance in computation-heavy applications such as trajectory correction, orbital manoeuvre planning, and real-time mission control.



Bhairav Robotics Unveils 'Rakshak'

- Bhairav Robotics has introduced Rakshak – an advanced autonomous weapon station, engineered to redefine modern battlefield capabilities through cutting-edge artificial intelligence and vision-based targeting.
- Unlike conventional Remote Controlled Weapon Stations (RCWS), which rely heavily on manual operator oversight and laser range finders (LRFs), Rakshak integrates a long-range stereo vision system with AI-powered detection and engagement functionalities.
- This technological leap allows it to independently identify, track, and neutralise threats with minimal human intervention, thus offering both enhanced accuracy and rapid response in combat scenarios.
- The inclusion of autonomous target engagement also gives Rakshak a decisive advantage in environments demanding split-second reactions that may be beyond human reflex thresholds.



Armed Forces Seek 'Digital Swords'

- The armed forces are seeking new 'digital swords' to counter emerging threats, including indigenous tools to detect deep fakes, cyber ranges to train soldiers in offensive and defensive tactics, and man-portable electronic warfare suites.
- While several tools are available in the global market, the armed forces require indigenous solutions to deal with sensitive information and customisation. On the list of technologies it requires in the near future is a Deep Fake detection software that can achieve 100% accuracy in almost real time.
- Deepfakes are images, videos, or audio that have been edited or generated using artificial intelligence, AI-based tools or audio-video editing software. They may depict real or fictional people and are considered a form of synthetic media, that is media that is usually created by artificial intelligence systems by combining various media elements into a new media artifact.



Exercise Zapad 2025

- An Indian Armed Forces contingent comprising 65 personnel departed on Tuesday for the Mulino Training Ground, Nizhniy, Russia, to participate in the multilateral joint military exercise ZAPAD 2025, scheduled to be conducted from September 10 to 16, 2025.
- The contingent comprises 57 Indian Army personnel along with seven personnel from the Indian Air Force and one from the Indian Navy. The Indian Army

contingent is being led by a battalion of the **KUMAON Regiment** along with troops from other arms and services.

- Exercise ZAPAD 2025 is designed to enhance military cooperation and interoperability among participating nations. The drills will provide a platform for exchanging tactics, techniques and procedures, particularly in conventional warfare and counter-terrorism operations.
- The focus will be on joint company-level operations in open terrain, involving mission planning, tactical drills and use of specialised arms skills. The exercise also aims to integrate emerging technologies and improve the ability of forces to operate in a multinational environment.



ISRO Transfers SSLV Technology To HAL

- ISRO has officially transferred its Small Satellite Launch Vehicle (SSLV) technology to HAL marking the 100th Technology Transfer Agreement (ToT) facilitated by the Indian National Space Promotion and Authorisation Centre.
- This transfer aims to democratise access to SSLV manufacturing within India and support the country's goal of becoming a global provider of affordable, reliable satellite launch services.
- The technology transfer process is planned to be completed within 24 months, with the first SSLV rocket produced by HAL expected to be ready for launch in 2027. HAL was selected through a competitive process managed by IN-SPaCe and was announced as the successful bidder in June 2025.



Indra Deliver India's First Homegrown 3D Naval Radar

- To support ongoing production, TASL has set up a dedicated radar assembly, integration, and testing facility in Karnataka, which the company said will accelerate deliveries.
- The 3D Air Surveillance Radar (3D-ASR), Lanza-N, makes TASL the first Indian company to demonstrate the ability to build and integrate next-generation naval surveillance radar systems, the company said in a statement.
- According to TASL, Indra's Lanza-N radar is a long-range, three-dimensional tactical surveillance system capable of detecting friendly and hostile air and surface targets. It is effective against drones, supersonic fighters, anti-radiation missiles, and all types of naval platforms.
- This marks the first time the Lanza-N radar will be operational outside Spain, TASL added.



Exercise Siyom Prahar

- The Indian Army successfully conducted Exercise Siyom Prahar from September 8 to 10, a major field training exercise aimed at validating the employment of drone technology in modern tactical operations.
- Conducted under realistic battlefield conditions, the exercise represented a significant advancement in operational preparedness by effectively integrating drones across both tactical and operational dimensions.
- According to the release, the scope of employment encompassed continuous surveillance and battlefield reconnaissance, as well as target acquisition and precision strikes. This development highlights the transformative role of unmanned aerial vehicles in enhancing combat effectiveness.
- The exercise also highlighted the importance of adaptability and synergy between traditional combat arms and emerging technological enablers.



'Samudra Pradakshina'

- Commemorating Nari Shakti and the vision for Viksit Bharat, Defence Minister Rajnath Singh, virtually flagged off a historic Tri-service all-women circumnavigation sailing expedition, Samudra Pradakshina, the first ever in the world, from the Gateway of India in Mumbai.
- In his address from South Block, the Defence Minister described the voyage as a glowing symbol of Nari Shakti, the collective strength, unity and jointness of the three Services, Aatmanirbhar Bharat and its military diplomacy and global vision.
- Over the next nine months, 10 women officers will sail onboard the indigenously-built Indian Army Sailing Vessel (IASV) Triveni on an easterly route covering approximately 26,000 nautical miles.
- The team will also make four international port calls before returning to Mumbai in May 2026.



Exercise Siam Bharat

- The Annual Joint Exercise #ExSiamBharat 2025 was conducted from 08–11 Sep at Pattaya, Thailand.
- Focused on greater inter operability, the Indian Air Force (IAF) & Royal Thai Air Force (RTAF) exchanged knowledge and niche tech in #HADR, fostering mutual learning and operational synergy.
- The exercise reinforced bonds of friendship and strengthened strategic ties between India & Thailand.
- **Context of India-Thailand Military Relations**
- **MAITREE Exercise:** In contrast to Siam Bharat, the "MAITREE" exercise is an annual joint military exercise between the Indian and Royal Thai Armies focusing on counter-terrorism operations.
- **Bilateral Cooperation:** India and Thailand maintain a strong bilateral defense relationship, which is further strengthened by these joint exercises.
- **Cultural Exchange:** The MAITREE exercise also features cultural exchange, with the Indian Army conducting Yoga sessions for its Thai counterparts, promoting a spirit of camaraderie.



Indian Navy Commissions Ins Aravali

- INS Aravali, Indian Navy's latest Naval Base, was commissioned at Gurugram in presence of Adm Dine. Guided by the motto 'सामुद्रिक सुरक्षायाः सहयोगं' or 'Maritime Security through Collaboration', the Naval Base exemplifies supportive and collaborative ethos, working seamlessly with naval units, MDA centres and allied stakeholders.



4th Coast Guard Global Summit in Rome

- In the 4th **Coast Guard Global Summit** (CGGS) held in Rome, Italy, from September 11-12, 2025, the ICG reaffirmed India's commitment to strengthening global maritime governance and positioning ICG as a key partner in shaping the agenda for safer, cleaner, and more secure seas.
- Director General ICG Paramesh Sivamani delivered a lecture titled '**Guardians Against the Blaze: ICG's Tactical Response to Fire Emergencies**', showcasing

India's expertise and constructive role in advancing maritime safety and security.

- ICG also announced its intent to bid for the Presidency of the 5th CGGS, planned to be hosted in **India in 2027**.
- The summit attended by delegates from 115 countries and international organisations was co-chaired by Italy & Japan and emphasised on collective approaches to safeguarding the global ocean environment.
- First convened in 2017 by the Japan Coast Guard and the Nippon Foundation, the CGGS has evolved into a vital mechanism for dialogue and confidence-building.



Exercise Pacific Reach 2025

- Indian Navy's latest indigenously designed and constructed Diving Support Vessel (DSV), INS Nistar made its maiden port call at Changi, Singapore on 14 Sep 2025.
- The ship functioning under the Command and Control of the Flag Officer Commanding Eastern Fleet will be participating in the multinational Exercise Pacific Reach 2025 (XPR 25) commencing 15 Sep 2025.
- INS Nistar, commissioned on 18 Jul 2025 is a shining example of India's self-reliance and progress towards achieving Aatmanirbharta in shipbuilding and has been able to achieve more than **80% indigenisation**.

- Exercise Pacific Reach 2025, being hosted by Singapore will see participation of more than 40 nations as active participants or as observers. The exercise will mainly be conducted in two phases viz. harbour and sea phase.
- The Sea phase of the exercise would witness INS Nistar and SRU(E) engaging in multiple intervention and rescue operations with participating assets in South China Sea.



Combined Commanders' Conference 2025

- PM Narendra Modi reviewed the security situation and the operational preparedness of the Armed Forces during the **16th Combined Commanders' Conference (CCC)** in Kolkata, West Bengal on September 15, 2025.
- The PM was briefed on the operational readiness in the context of the new normal created by **Operation Sindoor**, and the future of warfare amidst the emerging technology and tactics. He also reviewed the reforms implemented in the last two years, and the plan for the next two years.
- In line with 2025 being the '**Year of Reforms**' in defence, he instructed the Ministry of Defence to swiftly implement concrete steps to achieve greater Jointness, Aatmanirbharta and Innovation to meet future challenges and prevail against any eventuality.
- The CCC 2025 is focusing on Reforms, Transformation & Change and Operational Preparedness. Together, these reflect the Armed Forces' commitment to institutional reforms, deeper integration and technological modernisation, while sustaining a high level of multi-domain operational readiness.

- The theme this year is **'Year of Reforms – Transformation for the Future'**, in line with the ongoing modernisation and transformation of the Armed Forces.



Indian Navy Gets Anti-submarine Warfare Ship

- The Indian Navy has received an indigenously-built anti-submarine warfare ship that is expected to boost its maritime prowess against the backdrop of China's growing forays into the Indian Ocean.
- 'Androth', the second of the eight anti-submarine warfare-shallow water craft (ASW-SWC), has been built by Garden Reach Shipbuilders and Engineers (GRSE), Kolkata.
- The ship was delivered to the Indian Navy on Saturday, marking yet another step towards self-reliance in defence manufacturing.
- The name 'Androth' holds strategic and symbolic significance as it is derived from the **Androth Island in the Lakshadweep** archipelago, underscoring India's commitment to safeguarding its vast maritime territories.
- These ships at approximately 77-metre length are the largest Indian Naval warships propelled by a diesel engine-waterjet combination and are equipped with state-of-the-art lightweight torpedoes and indigenous anti-submarine warfare rockets, officials said.
- 'Aatmanirbhar Bharat' with over **80 per cent indigenous content**.



Pakistan, Saudi Arabia Ink Defence Pact

- Pakistan and Saudi Arabia on Wednesday signed a defence pact under which any aggression against either country shall be considered as an act of aggression against both.
- The 'Strategic Mutual Defence Agreement' was signed during Prime Minister Shehbaz Sharif's state visit to Riyadh, where he was received by Crown Prince and Prime Minister Mohammed bin Salman at Al-Yamamah Palace.
- PM's office announced the signing of the pact, which stated that any aggression against either country shall be considered an act of aggression against both.
- "Building on a partnership extending nearly eight decades, and grounded in bonds of brotherhood, Islamic solidarity and shared strategic interests, the two sides signed the Strategic Mutual Defence Agreement," a joint statement released after the signing ceremony said.
- The pact reflects a joint commitment to enhance bilateral security ties and contribute to regional and global peace, the statement said.
- He earlier visited Qatar twice, on Thursday and Monday, to express solidarity with Doha following Israel's attack on the Hamas leadership in the Gulf country and to attend an emergency meeting of Arab-Islamic nations on the issue.



World Athletics C'ships

- Indian Olympic gold medallist Neeraj Chopra's title defence at the World Athletics Championships Tokyo 2025 was unsuccessful, as he finished in eighth spot after what was an extremely underwhelming night for him, ending a streak of 26 top-two finishes in javelin throw events.
- Meanwhile, Sachin Yadav, his compatriot, had a much better showing, finishing **fourth** in the competition.
- The world javelin title went to **Trinidad and Tobago's Keshorn Walcott**, who managed the best throw of 88.16 m, marking his first World Championship gold 13 years after his Olympic triumph in London.
- At the second spot was **Anderson Peters**, the 2024 Olympics bronze medallist with a best throw of 87.38 m, followed by America's Curtis Thompson with a throw of 86.67 m.

OFFICIAL RESULT

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P	Athlete		Mark
1	Keshorn WALCOTT	TTO	88.16
2	Anderson PETERS	GRN	87.38
3	Curtis THOMPSON	USA	86.67
4	Sachin YADAV	IND	86.27
5	Julian WEBER	GER	86.11
6	Julius YEGO	KEN	85.54
7	Rumesh Tharanga PATHIRAGE	SRI	84.38
8	Neeraj CHOPRA	IND	84.03
9	Dawid WEGNER	POL	83.03
10	Arshad NADEEM	PAK	82.75
11	Jakub VADLEJCH	CZE	78.71
12	Cameron MCENTYRE	AUS	75.65

India to Buy More Heron Drones

- The Indian armed forces are set to buy more Israeli Heron UAVs drones after their successful use in Operation Sindoor earlier this year and plan to arm them with air-launched **Spike anti-tank guided missiles**.
- The Heron drones are primarily used for long-range surveillance on both the Chinese and Pakistani borders and have proved highly effective.
- The Indian armed forces already operate a large fleet of Heron drones across all three services, the **Army, Navy and Air Force**, from their respective bases.
- Intelligence agencies also use Herons for specialised operations.
- In parallel, the Indian Air Force and the Ministry of Defence have been pursuing **Project Cheetah** for several years to upgrade the surveillance and combat capabilities of the Heron fleet.
- India has also been acquiring the advanced **Heron Mark 2 drones** in recent years. These upgraded UAVs are equipped with satellite communication systems, enabling them to fly longer missions with extended ranges.
- At the same time, India also has its own indigenous programme to develop **Medium Altitude Long Endurance (MALE)** drones. Under this plan, the

government is looking to procure 87 UAVs through a competitive bidding process.

- The armed forces have projected a long-term requirement of nearly 400 MALE drones over the next 10-15 years to meet the country's security needs.



Praveen Kumar Gets Appointed as DG of ITBP

- Senior IPS officers **Praveer Ranjan and Praveen Kumar** were on Friday appointed as the chiefs of the Central Industrial Security Force (CISF) and the Indo-Tibetan Border Police (ITBP), respectively.
- Ranjan, a 1993-batch Indian Police Service (IPS) officer of AGMUT (Arunachal Pradesh, Goa, Mizoram, and Union Territories) cadre, is currently serving as the Special Director General of CISF.
- The Appointments Committee of the Cabinet approved his appointment as Director General, CISF, for a period up to July 31, 2029, the date of his superannuation, an order issued by the Ministry of Personnel said.
- Praveen Kumar, Special Director, Intelligence Bureau, has been appointed as the Director General, ITBP, for a period up to September 30, 2030, the date of his superannuation.
- Kumar is a 1993-batch West Bengal cadre IPS officer. He will take over the charge of the border guarding force from incumbent Rahul Rasgotra, who is due to superannuate on September 30.



ICG Launches Fast Patrol Vessel ICGS 'Adamya'

- The Indian Coast Guard commissioned the fast patrol vessel (FPV) Adamya at Paradip, Odisha, on September 19, 2025, marking an important boost to maritime security in the Bay of Bengal.
- Built by state-owned Goa Shipyard Limited as part of a series of eight FPVs, Adamya has been designed for high-speed interdiction, coastal surveillance, and rapid-response missions.
- With a top speed of 27 knots (around 50 kmph), the vessel is capable of swift pursuit and interception to counter threats such as infiltration, smuggling, and piracy.
- Equipped with advanced navigation and communication systems, the FPV will operate with a complement of five officers and 34 enlisted staff.
- Its deployment at **Paradip** is strategically significant, given the port's proximity to vital shipping lanes, offshore assets, and key approaches along India's eastern seaboard.



Diamond Jubilee Of India's Victory Over Pak

- Defence Minister Rajnath Singh on Friday interacted with the brave veterans and the families of the fallen heroes of the 1965 war at an event organised by the Army at South Block, New Delhi, to commemorate the diamond jubilee of India's victory over Pakistan.
- Ministry of Defence, in his address, Singh paid glowing tributes to the bravehearts who made the supreme sacrifice in the line of duty 60 years ago and ensured that India emerged victorious.
- "Our brave Abdul Hamid taught us that bravery is not about the size of the weapon, it is about the size of the heart. His valour teaches us that even in the most difficult circumstances, the combination of courage, restraint and patriotism can make the impossible possible," the Defence Minister said.
- **Background**
- The war was fought between **India and Pakistan from April to September 1965.**
- It was primarily triggered by **Pakistan's Operation Gibraltar**, in which Pakistani soldiers disguised as locals infiltrated Jammu & Kashmir to incite insurgency.
- India responded with full military force, leading to a large-scale conflict across the western border.
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- **Major Events**
- **Operation Gibraltar (August 1965):** Pakistan's plan to infiltrate Kashmir with the aim of causing rebellion against Indian rule.

- **Operation Grand Slam (September 1965):** Pakistan's attempt to capture Akhnoor in Jammu, which was considered a strategic gateway to Kashmir.
- India retaliated by launching a **counter-offensive across the international border**, advancing towards Lahore and Sialkot.
- Some of the fiercest tank battles since World War II were fought, notably at **Asal Uttar (Punjab)** and **Chawinda (Sialkot sector)**.
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- **Heroes of the War**
- **Company Quartermaster Havildar (CQMH) Abdul Hamid** of the Indian Army destroyed multiple Pakistani Patton tanks at Asal Uttar using a recoilless gun, earning the **Param Vir Chakra (PVC)** posthumously.
- Several Indian Air Force and Army officers showed exceptional bravery during the conflict.
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- **Outcome**
- The war ended in **stalemate** with both sides suffering heavy casualties and territorial losses.
- The **Tashkent Agreement** was signed on **10 January 1966**, brokered by the Soviet Union (led by Premier Alexei Kosygin), where both countries agreed to withdraw to pre-war positions.
- Indian Prime Minister **Lal Bahadur Shastri** passed away in Tashkent shortly after signing the agreement.
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- **Significance**
- The war demonstrated India's resilience in defending its territory despite Pakistan's initial surprise.
- It highlighted the importance of **armored warfare and air power** in modern battles.
- Abdul Hamid and other war heroes became enduring symbols of patriotism.
- The conflict deepened hostility between India and Pakistan, setting the stage for the **1971 war**.



Pokhran Exercise

- The Pokhran Field Firing Range in Jaisalmer district, Rajasthan, was transformed into a simulated battlefield as the Indian Army's **Battle Axe Division** conducted its annual field firing exercise under the theme "**Focus, Fortitude, and Fire Power.**"
- The exercise showcased the army's combat readiness with next-generation weapons and modern equipment.
- During the exercise, the Battle Axe Division demonstrated combat effectiveness using a wide range of infantry weapons, including assault rifles, light machine guns (LMG), heavy machine guns, sniper rifles, under-barrel grenade launchers, mortars, anti-tank rocket systems, and personal defence weapons.
- Night-vision and thermal sighting devices, drones, surveillance equipment, and communication and navigation devices such as radio and GPS were also used.
- The Battle Axe Division, part of the Southern Command based in Pune, conducts annual exercises at the Pokhran range to assess combat capabilities in desert conditions near the Pakistan border.



Project Vijayak (BRO) Celebrates 15th Raising Day

- Project Vijayak of the Border Roads Organisation (BRO) celebrated its 15th Raising Day at Kargil, Ladakh on September 21, 2025, expanding infrastructure projects worth over Rs 1,200 crore as it enters its 16th year.
- Over the last 15 years, the Project has built and maintained more than 1,400 km of roads and 80 major bridges across Ladakh, including the record-setting reopening of the strategic Zojila Pass within just 31 days of its winter closure in April 2025, an unprecedented feat in high-altitude connectivity.
- Raised in 2010, Project Vijayak was entrusted with the task of linking Ladakh's remote valleys and forward areas with the national mainstream while fulfilling operational requirements of the Armed Forces.



International Coastal Cleanup Day 2025

- As part of Swachh Bharat Abhiyan and Prime Minister's call for "Swachhta Hi Seva" (SHS), the Indian Coast Guard (ICG) celebrated International Coastal Cleanup Day 2025 (ICC-2025) nationwide on September 20, 2025.
- The event also focused on sensitising citizens about the need for sustainable practices and raising awareness on the importance of protecting fragile coastal ecosystems.
- Observed globally on the third Saturday of September under the aegis of United Nations Environment Programme (UNEP) and South Asia Co-operative Environment Programme (SACEP), the initiative combats marine pollution through mass community participation. The ICG has been the national coordinator since 2006, consistently fostering environmental stewardship.



India's First Overseas Defence Manufacturing Unit

- Tata Group's defence arm, Tata Advanced Systems, has established a new armoured vehicle production facility as India's first overseas defence manufacturing unit in Morocco, Africa.
- The facility at Berrechid will manufacture the Wheeled Armoured Platform (WhAP) 8x8, marking first Indian defence plant in the African continent.
- The manufacturing facility will be inaugurated by Rajnath Singh during his two-day visit to the North African nation from September 22 to 23. This visit marks the first-ever visit by an Indian defence minister to Morocco, at the invitation of Minister Delegate of National Defence Abdeltif Loudiyi.



IIT-Bombay-Led 'Daksha' Mission

- The IIT-Bombay-led 'Daksha' mission is a cutting-edge Indian space initiative aiming to develop and launch two satellites equipped with the world's most powerful space telescopes.
- This ambitious mission is designed to cover a vast volume of space—1.81 million cubic megaparsecs—about five times more than NASA's current Fermi Gamma Ray Telescope.
- Its primary scientific objective is to study high-energy astrophysical phenomena such as gamma ray bursts (GRBs) and the electromagnetic counterparts to gravitational wave (GW) sources including neutron star mergers and black holes.
- ISRO identified Daksha as a top candidate during its 2018 call for new space missions and has provided seed funding; the mission has met all technical requirements as of December 2022, though full financial and policy approval is still pending.



Idea Forge, First Breach Launch 'First Forge' JV To Manufacture UAV

- Indian drone manufacturer idea Forge Technology Limited has announced the formation of a joint venture with US-based First Breach to supply and manufacture UAVs in the United States. The new entity, named First Forge Technology Inc., will focus on advancing UAV production for the US market.
- According to regulatory filings, First Forge Technology Inc. will be engaged in a wide array of activities, including licensing, sourcing, designing, engineering, manufacturing, and distribution of specific UAV platforms in the US. The effort is aimed at creating a localised supply chain that ensures compliance with US market standards and defence procurement requirements.
- By combining cutting-edge drone technologies with robust US manufacturing capacities, the First Forge joint venture is set to enhance competitive positioning in the UAV sector. If executed successfully, it could establish idea Forge as a global defence technology player while strengthening the US drone supply chain.



Exercise Jal Prahar

- The Indian Navy successfully concluded the biannual joint Exercise Jal Prahar, a joint amphibious exercise conducted in close coordination with the Indian Army.
- The exercise aimed to validate and enhance inter-service synergy, operational planning and execution in amphibious operations along India's eastern seaboard.

- The exercise was conducted in two phases. The Harbour Phase (16-20 Sep) at Visakhapatnam focused on the induction and integration of army troops onboard INS Gharial.
- The Sea Phase (21-23 Sep) witnessed the execution of amphibious operations, which included hard beaching at Kakinada, launching of LCAs and BMPs, and validation of SOPs and Joint Training Protocols.



VyomIC to Build India's First Private GPS Constellation

- VyomIC, a Chennai-based space start-up founded by alumni of IIT-Madras, is planning to build India's first private global satellite constellation to provide high-precision Positioning, Navigation, and Timing (PNT) services.
- This initiative marks a significant step in India's space and navigation technology sector, aiming to offer centimetre-level positioning and nanosecond-level timing accuracy, which are critical for defence, finance, telecommunications, and autonomous systems applications.
- The start-up has successfully raised USD 1.6 million in pre-seed funding led by Speciale Invest, with participation from BYT Capital and DeVC. The funds will be utilized to develop VyomIC's low Earth orbit (LEO)-based PNT payload, support spaceborne demonstration missions, and scale the team hiring and business development efforts.

- VyomIC emphasises building a constellation using LEO satellites, which offers distinct advantages over traditional GPS systems that operate at higher orbits.



Anant Shastra

- The Indian Army has issued a tender to state-owned Bharat Electronics Limited (BEL) for the procurement of five to six regiments of the indigenously developed 'Anant Shastra' surface-to-air missile weapon systems.
- The system, earlier known as the Quick Reaction Surface-to-Air Missile (QRSAM), has been developed by the DRDO.
- The project is estimated to cost about Rs 30,000 crore and is aimed at strengthening air defence capabilities along the borders with Pakistan and China.
- The Army's Air Defence (AAD) played a significant role during Operation Sindoor in countering Pakistani drone attacks. At present, the AAD operates systems such as MRSAM and Akash in coordination with the Indian Air Force to counter aerial threats.
- The Defence Acquisition Council cleared the procurement proposal shortly after Operation Sindoor in May. The mobile system can search, track and engage targets on the move, with a firing range of around 30 km, complementing existing MRSAM and Akash systems.



Bharat Tests Agni-Prime Missile

- India successfully conducted the flight test of its Intermediate Range Agni-Prime missile from a rail-based mobile launcher system, defence minister Rajnath Singh confirmed in a post on X (formally Twitter).
- The new generation missile, designed for a strike range of up to **2,000 km**, is equipped with advanced features and represents a key step in the country's strategic capabilities.
- For the first time, the missile was launched from a specially designed rail-based mobile launcher. The system can move freely on the rail network without prior conditions, enabling cross-country mobility. It allows forces to carry out launches within short reaction time while keeping operational visibility low.
- In his post, the defence minister said, "Congratulations to DRDO, Strategic Forces Command (SFC) and the Armed Forces on successful test of Intermediate Range Agni-Prime missile."



REVIEW QUESTIONS

1. Exercise Yudh Abhyas 2025 between India and the USA held at which location?

- A. Fort Bliss, Texas
- B. Fort Wainwright, Alaska
- C. Camp Humphreys, South Korea
- D. Fort Hood, Texas

ANSWER: B

2. DRDO has designated Apollo Micro Systems as the production agency for which cutting-edge naval mine?

- A. Shakti
- B. Vighana
- C. Trishul
- D. Prabal

ANSWER: B

3. BHEL will manufacture radar domes (Radomes) using which specialised material?

- A. Carbon Fibre Composite
- B. Aluminium Alloy
- C. Fused Silica
- D. Titanium

ANSWER: C

4. At the 25th SCO Summit in Tianjin, PM Modi summarized India's regional vision into three letters—S, C, O. What do they stand for?

- A. Strategy, Cooperation, Outreach
- B. Security, Connectivity, Opportunity
- C. Strength, Confidence, Order
- D. Safety, Collaboration, Organisation

ANSWER: B

5. The 14th edition of Exercise MAITREE between India and Thailand in 2025 is being held at which location?

- A. Fort Vachiraparkan, Thailand
- B. Satish Dhawan Space Centre, Sriharikota
- C. Joint Training Node, Umroi, Meghalaya

D. INS Hansa, Goa

ANSWER: C

6. The Kalam-250 solid rocket motor, developed by Skyroot Aerospace, was first tested in March 2024 at:

- A. Thumba Equatorial Rocket Launching Station
- B. Satish Dhawan Space Centre, Sriharikota
- C. Indian Institute of Science, Bengaluru
- D. Vikram Sarabhai Space Centre, Thiruvananthapuram

ANSWER: B

7. The Vikram-3201 chip India's first indigenously developed ____ processor qualified for use in space launch vehicles.

- A. 8-bit
- B. 16-bit
- C. 32-bit
- D. 64-bit

ANSWER: C

8. Bhairav Robotics' newly unveiled autonomous weapon station 'Rakshak' is unique because it—

- A. Operates only with manual operator control
- B. Uses AI-powered vision system for autonomous target engagement
- C. Works exclusively with laser range finders
- D. Is designed only for naval warfare

ANSWER: B

9. The theme of the Combined Commanders' Conference 2025 is:

- A. Defence Transformation – Vision 2040
- B. Year of Reforms – Transforming for the Future
- C. Towards a Modernised Armed Forces
- D. Future-Ready India: Strategic Reforms

ANSWER: B

10. What indigenous capability are the armed forces seeking as part of their new "digital swords"?

- A. Nuclear fusion technology
- B. Deep Fake detection software

- C. Hypersonic missile defence
- D. Advanced radar satellites

ANSWER: B

11. Exercise ZAPAD 2025 conducted in which country?

- A. Kazakhstan
- B. Belarus
- C. Russia
- D. Armenia

ANSWER: C

12. ISRO has transferred its Small Satellite Launch Vehicle (SSLV) technology to which organisation?

- A. DRDO
- B. BHEL
- C. HAL
- D. BEL

ANSWER: C

13. Which company has become the first Indian firm to build and integrate next-generation naval surveillance radar systems with the Lanza-N radar?

- A. DRDO
- B. TASL
- C. HAL
- D. BEL

ANSWER: B

14. Exercise Siyom Prahar, primarily focused on validating the employment of which technology in tactical operations?

- A. Hypersonic Missiles
- B. Artificial Intelligence
- C. Drone Technology
- D. Cyber Warfare

ANSWER: C

15. Exercise Siam Bharat 2025 was conducted between which two Air Forces?

- A. Indian Air Force and Royal Malaysian Air Force

- B. Indian Air Force and Royal Thai Air Force
- C. Indian Air Force and Singapore Air Force
- D. Indian Air Force and Indonesian Air Force

ANSWER: B

16. CGGS summit?

- A. 2026 (5th)
- B. 2027 (5th)
- C. 2028 (6th)
- D. 2029 (6th)

ANSWER: B

17. 'Androth', the second of the eight ASW-SWC has been built by which shipbuilder?

- A. Mazagon Dock Shipbuilders Limited (MDL)
- B. Cochin Shipyard Limited (CSL)
- C. Garden Reach Shipbuilders and Engineers (GRSE)
- D. Hindustan Shipyard Limited (HSL)

ANSWER: C

18. The name 'Androth' has been derived from which island in the Lakshadweep archipelago?

- A. Minicoy Island
- B. Kavaratti Island
- C. Bitra Island
- D. Androth Island

ANSWER: D

19. 16th Combined Commanders' Conference (CCC) held at—

- A. Mumbai, Maharashtra
- B. Visakhapatnam, Andhra Pradesh
- C. Kochi, Kerala
- D. Kolkata, West Bengal

ANSWER: D

20. At the World Athletics Championships 2025 in Tokyo, who won the gold medal in men's javelin throw?

- A. Neeraj Chopra
- B. Curtis Thompson
- C. Anderson Peters
- D. Keshorn Walcott

ANSWER: D

21. What capability upgrade is being pursued under India's Project Cheetah?

- A. Nuclear-powered submarines
- B. Surveillance and combat capabilities of Heron drones
- C. Development of stealth fighter jets
- D. Modernisation of artillery systems

ANSWER: B

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

- A. Praveer Ranjan
- B. Rahul Rasgotra
- C. Praveen Kumar
- D. Adam Boehler

ANSWER: C

23. The Indian Coast Guard commissioned the fast patrol vessel (FPV) Adamyra at which location?

- A. Kochi, Kerala
- B. Paradip, Odisha
- C. Mumbai, Maharashtra
- D. Vishakhapatnam, Andhra Pradesh

ANSWER: B

24. Project Vijayak of the BRO, is mainly associated with which region?

- A. Sikkim
- B. Arunachal Pradesh
- C. Ladakh
- D. Uttarakhand

ANSWER: C

25. International Coastal Cleanup Day 2025 in India was coordinated nationally by which organisation?

- A. Ministry of Environment, Forest and Climate Change
- B. National Green Tribunal
- C. Indian Coast Guard
- D. NITI Aayog

ANSWER: C

26. The Indian Navy's 'Androth' is built by which shipbuilding company?

- A. Mazagon Dock Shipbuilders Ltd
- B. Cochin Shipyard Ltd
- C. Garden Reach Shipbuilders & Engineers Ltd
- D. Hindustan Shipyard Ltd

ANSWER: C

27. Where has Tata Advanced Systems established India's first overseas defence manufacturing unit?

- A. South Africa
- B. Morocco
- C. Egypt
- D. UAE

ANSWER: B

28. The IIT-Bombay-led 'Daksha' mission primarily aims to study which phenomena?

- A. Exoplanet atmospheres
- B. Solar flares and sunspots
- C. Gamma ray bursts and gravitational wave sources
- D. Space debris and asteroid impacts

ANSWER: C

29. Idea Forge has partnered with which company to form the joint venture 'First Forge Technology Inc.'?

- A. Lockheed Martin
- B. Boeing
- C. First Breach
- D. General Atomics

ANSWER: C

30. Exercise Jal Prahar was conducted jointly by which two forces?

- A. Indian Army and Indian Air Force
- B. Indian Navy and Indian Army
- C. Indian Navy and Coast Guard
- D. Indian Army and BSF

ANSWER: B

