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SP'S MILITARY YEARBOOK 2023 - 2024

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THE ONLY NAVAL MAGAZINE FOR NAVIES ACROSS ASIA-PACIFIC

FLAG APPOINTMENTS

Vice Admiral Ajay Kochhar assumes Command of ANC
A seasoned Flag Officer, he has commanded frontline warships, led critical operational and training assignments, and held key leadership roles including Assistant Controller of Carrier Projects (ACCP), Assistant Controller of Warship Production & Acquisition (ACWP&A), Commandant, and Chief of Staff Western Naval Command.

Vice Admiral Rahul Vilas Gokhale assumes Charge as Chief of Staff, Western Naval Command
As the Flag Officer Sea Training, he was responsible for Operational Training of all sea going platforms. He thereafter served as Assistant Chief of Personnel (Human Resource Development) at Naval Headquarters, New Delhi and commanded the Western Fleet of the Indian Navy prior assuming duties of the Chief of Staff, Western Naval Command.

Vice Admiral Sanjay Bhalla takes over as the Flag Officer Commanding-in-Chief, Eastern Naval Command
He had the privilege and opportunity of holding challenging Command at sea, which include, INS Nishank, INS Taragiri, INS Beas and the coveted appointment of Flag Officer Commanding Eastern Fleet (FOCEF). He has held important staff appointments ashore, including ACOP (HRD) at Naval Headquarters, Chief of Staff, Western Naval Command, Director MDCC and a diplomatic assignment overseas. Prior to assuming Charge as FOC-in-C (East), he was the Chief of Personnel (COP) at Naval Headquarters.

Vice Admiral Sameer Saxena takes over as the Flag Officer Commanding-in-Chief, Southern Naval Command
As Rear Admiral, he served as the Assistant Chief of Naval Staff (Policy & Plans). Thereafter, he commanded the Western Fleet of the Indian Navy from December 2021 to November 2022. In November 2022, he took over as the FOC Gujarat Naval Area. On promotion to the rank of Vice Admiral on August 1, 2023, the Flag Officer took over the responsibilities of Chief of Staff, ENC.

Vice Admiral Gurcharan Singh assumes charge as the Chief of Personnel
He took over as the Flag Officer Commanding Eastern Fleet in November 2022. On elevation to the rank of Vice Admiral in January 2024, the Flag Officer was appointed as Controller Personnel Services. Prior assuming charge as Chief of Personnel, the Flag Officer was the Commandant, NDA, Khadakwasla.

Vice Admiral B. Sivakumar assumes charge as the Chief of Materiel
On completion of his tenure as the Assistant Chief of Materiel (Information Technology & Systems) at Naval Headquarters, he was promoted to the rank of Vice Admiral and appointed as Programme Director, HQ ATVP followed by Controller of Warship Production & Acquisition and Director General Naval Projects at Visakhapatnam.

▷ **EXCLUSIVE** CHIEF OF INTEGRATED DEFENCE STAFF (CISC)

PHOTOGRAPH: HQ_IDS_India / X

CISC's role in the integrated capability development plan is crucial within the broader national security architecture. In an exclusive and comprehensive interaction, **Manish Kumar Jha** speaks with **Air Marshal Ashutosh Dixit, Chief of Integrated Defence Staff (CISC)** at Headquarters, Integrated Defence Staff (IDS) on the role, mandates, and warfare capability roadmap.

Driving Jointness, Indigenisation, and Future Capability — The CISC Perspective

THIS IS THE FIRST-EVER detailed outline of the Chief of Integrated Defence Staff (CISC) at Headquarters, Integrated Defence Staff (IDS). In the crucial interaction, Air Marshal Dixit outlines the indigenisation, a unified strategic outlook for indigenous platform development and, most critically, the Technology Perspective and Capability Roadmap (TPCR) 2025, prepared by HQ IDS.

Manish Kumar Jha (Manish Jha): Could you elaborate on the role of the Chief of Integrated Defence Staff (CISC) at the HQ Integrated Defence Staff in the National Security Structure?

Air Marshal Ashutosh Dixit (Dixit): The Chief of Integrated Defence Staff to the Chairman Chiefs of Staff Committee plays a key role in supporting the Chiefs of Staff Committee and the Chief of Defence Staff in matters related to joint planning, capability development, and inter-service coordination. The position is largely focused on integration, bringing together the perspectives of the Army, Navy, and Air Force, to ensure coherent planning and operational preparedness.

One of the focus areas of this office is also in regards to optimising joint procurements through a process-based scientific modelling and an integrated capability development plan. Within the broader national security architecture, the role is advisory and facilitative, helping to bridge the services with other stakeholders, including the Ministry of Defence, while ensuring that decisions are well-informed and aligned with long-term strategic objectives.

Manish Jha: The CISC is an apex-level body for military Jointness. How do you promote a culture of Jointness? What are the other mandates which work towards building military capabilities?

Dixit: Building a culture of jointness is a gradual process that requires fostering trust, mutual understanding, and shared objectives among the three services. This

EDITORIAL

In an exclusive and extensive interaction with Manish Kumar Jha of *SP's Naval Forces*, Air Marshal Ashutosh Dixit, Chief of Integrated Defence Staff (CISC), outlined the crucial role of the Integrated Defence Staff (IDS) in strengthening jointness, indigenisation, and long-term capability development, across the Indian Armed Forces. He described the CISC as a linchpin in aligning the strategic, operational, and procurement visions of the Army, Navy, and Air Force to ensure a unified national defence posture.

A major focus of CISC's work lies in developing the Integrated Capability Development Plan (ICDP) — a comprehensive 10-year roadmap that integrates modernisation priorities, technological advancements, and fiscal realities. Supported by the Technology Perspective and Capability Roadmap (TPCR) 2025, the ICDP ensures synchronisation between defence planning and indigenous R&D efforts.

CISC's office also drives joint training initiatives, cross-postings, and integrated logistics nodes to build operational synergy and enhance efficiency. Air Marshal Dixit highlighted that evolving warfare dynamics, especially the integration of advanced technologies and network-centric systems, are shaping future capability needs. The emphasis now lies on R&D-led acquisitions, seamless interoperability, and data-driven decision-making to ensure readiness for modern conflicts.

Indigenisation remains a critical pillar, with HQ IDS coordinating tri-service requirements under initiatives such as iDEX and the Technology Development Fund (TDF). Efforts extend to building Centres of Excellence, enhancing private industry participation, and encouraging academia through defence technology programmes. The CISC's spectrum management role and work on Network Centric Warfare further underline its technological stewardship.

Internationally, the CISC fosters defence diplomacy through multilateral exercises and capacity-building initiatives with over 38 countries, reinforcing India's image as a "Preferred Security Partner" and "First Responder." Air Marshal Dixit's vision reflects India's evolving approach to a self-reliant, networked, and future-ready defence ecosystem.

Recently, Defence Minister Rajnath Singh, addressing the 42nd Indian Coast Guard (ICG) Commanders' Conference, hailed the ICG as a "true force multiplier" in safeguarding India's maritime domain. With a formidable fleet of 152 vessels and 78 aircraft, the ICG has transformed into a vital pillar of national security, combining external and internal security roles. Rajnath Singh highlighted its success in countering smuggling, trafficking, and maritime pollution, while also leading disaster relief and humanitarian operations. Emphasising indigenisation — with nearly 90 per cent of its capital budget spent on Indian assets — he urged the ICG to adopt AI, drones, and cyber capabilities as it crafts a futuristic roadmap toward 2047. A detailed report on the conference is included in this issue.

Wishing all discerning readers happy reading!

JAYANT BARANWAL
Publisher & Editor-in-Chief

can be achieved through joint training, integrated planning processes, and exposure to inter-service perspectives at various levels of professional military education. Over time, these efforts help create a mindset where operational synergy becomes second nature rather than a directive. Presently, we have identified key initiatives such as Joint Staff Training (Purple Division) at DSSC Wellington, joint training programmes at various Joint Service Training Institutes and cross postings amongst the services to further the integration process.

In addition, steps towards improving op efficiency have also been taken by creating Joint Logistics Nodes at a few places. Beyond nurturing Jointness, there are other mandates focused on capability building, such as long-term force structuring, modernisation planning, and aligning capability development with emerging threats and technological advancements. The emphasis is on ensuring that resources are optimally utilised, while maintaining a balanced and future-ready force to meet the nation's security requirements.

Manish Jha: How does the CISC supervise the coordination of long-range plans, five-year plans, and annual budgetary proposals of the Services?
Dixit: Formulation of Long-Range Plans, earlier referred to as the Long-Term Integrated Perspective Plans (LTIPP), is now being prepared as the Integrated Capability Development Plan (ICDP) by HQ IDS mandated as per the Defence Acquisition Procedure (DAP) 2020. The planning process evolves from the National Security Strategy/Guidelines and the Defence Minister's Operational Directives. ICDP, which is under preparation at HQ IDS, will be a comprehensive 10-year modernisation plan of the Services, and will comprise two five-year Defence Capital Acquisition Plans.

To synchronise the modernisation plans with concurrent technology development by the Industry, a Technology Perspective and Capability Roadmap (TPCR) 2025, prepared by HQ IDS, has recently been approved by the Defence Minister and promulgated to the environment.

At HQ IDS and the Services, we are seized of the constantly evolving character of warfare and have adjusted our modernisation plans accordingly

Services' Capital Acquisition Plans are approved every year by the Defence Procurement Board (DPB) through the Annual Acquisition Plans (AAP) prepared by HQ IDS in consultation with Services. The AAP synchronises the annual budgetary outlay allocated by the MoD with current Acquisition Plans. This is a consultative and iterative process, coordinated by HQ IDS, which enables the fruition of planned capital acquisitions of the Services.

Manish Jha: The Capital Budget - 26 per cent of the Defence Budget remains insufficient for military modernisation. How do you ensure the allocation amongst the Services for the continuity of modernisation?
Dixit: Allotment for Capital Modernisation for FY 2025-26 has seen a 5.7 per cent increase from the BE allotment for FY 2024-25, but a 14.4 per cent increase over the RE of FY 2024-25.

This year, the Capital Budget for Modernisation forms approximately 22 per cent of the Defence Budget. Trends of previous years indicate that adequate funds were, and will be, made available for Defence Modernisation.

In fact, based on the Defence Minister's directions during the last Joint Commanders' Conference, we have tentatively worked out the requirement of funds for Capital Modernisation for the next 10 years. Since the Annual Budget (Defence Budget) mandates approval of the Parliament as per the Constitution, the Service continues to plan and undertake its acquisition processes as per the AAP in accordance with the Annual Capital Outlay allocated by MoD (Fin). Re-appropriation/allocation of budget, if necessitated towards the end of the FY, is undertaken by the MoD (Finance).

PHOTOGRAPH: Indian Air Force

Manish Kumar Jha (right) In an exclusive and comprehensive interaction with Air Marshal Ashutosh Dixit, Chief of Integrated Defence Staff (CISC) at Headquarters, Integrated Defence Staff (IDS)

Manish Jha: As an apex military institution, how do you look at the warfare and capability roadmap? How do you look at critical gaps, for example, the depletion squadron for the IAF, the long-delayed process for Submarine Acquisition (P-75I), etc?
Dixit: The changing character of Warfare drives and dictates the Capability Development roadmap. At HQ IDS and the Services, we are seized of the constantly evolving character of warfare and have adjusted our modernisation plans accordingly.

The focus of our capability development now incorporates R&D acquisition of new generation equipment and weapons, driven and connected through seamless integrated networks across Services. The effectiveness of such weapons and platforms was evident in Op SINDOOR, where seamless integration and Jointness in planning and execution were apparent.

However, it has been rightly brought out that there are some critical gaps in our capability, especially in large platforms and weapons. The Services have constantly highlighted these to the MoD, and I can assure you that everyone in the MoD is seized of the matter, and all efforts toward mitigation are being undertaken.

CISC's role in laying guidelines for Indigenisation encompasses coordinating tri-service requirements and creating a unified strategic outlook for indigenous platform development

Manish Jha: Each Service has a different acquisition plan and process. While complex in terms of Jointness and requirements, how do you optimise the acquisition process and define qualitative elements?
Dixit: The core tasking of each Service necessitates a tailor-made modernisation plan, which is integrated and optimised at HQ IDS to undertake optimisation. Multiple ORSA studies have been undertaken, namely Anti-Tank weapon & Attack Helicopters. However, the acquisition process for all Services remains the DAP 2020. Presently, the process being used for integration and optimisation of the modernisation plans is the Integrated Capability Development System (ICADS), from which the ICDP will eventually flow. The ICADS uses a threat cum Capability model to prioritise and optimise capability requirements based on National Military Objectives and Derived Military Missions.

The integrated plans, which will take into account all contingencies and scenarios, will then be processed through the DAP-20 (or the next iteration of OAP), manifesting into capability acquisitions.

Manish Jha: As per the mandate, how do you look at progress on building a theatre command? Is there a timeline?
Dixit: The process of theaterisation is being approached in a calibrated and deliberate manner. A lot of work has been done in terms of studies, consultations, and planning to ensure that the final structure is both effective and sustainable. It is a complex endeavour involving multiple stakeholders with focus on building consensus and ensuring that when implemented, it achieves jointness and operational efficiency.

Manish Jha: Could also talk about CISC's role in laying guidelines for indigenisation of military platforms, systems, and R&D in the military?
Dixit:

- **R&D in the Military:** The government has mandated spending of 25 per cent of the Defence R&D Budget on the private sector. This is being progressed through schemes such as TDF, iDEX and incorporating Private vendors in Design and Development projects of DRDO (for example L&T for Zorawar).

TDF scheme, which aims to build a strong defence industrial base through in-house design and development, has been enhanced to ₹50 crore from ₹10 crore. As a member of the empowered committee of the TDF, the CISC is actively involved in granting access to projects involving start ups and MSMEs.

- **Creation of CoE:** Centres of Excellence on diverse subjects related to defence technology have been created with the Academia, such as IITs, by DRDO. Amongst the Services too, institutes such as UDAAN & MCTE are designated as CoE for AI & Quantum Communications.
- **Emphasis on ToT:** Greater emphasis is now being placed on Transfer of Technology in all procurement deals with global vendors. This is aimed at developing the required expertise in own private sector. Case in point, being the Multi-Role Fighter Aircraft project.
- **M.Tech in Def Tech:** Private universities/Colleges have now started offering M.Tech in defence technologies for students pursuing higher studies. This will enable absorption of home-grown talent by the own private industry. Further, incubation cells for progressing R&D have been created at institutes such as IISc Bangalore & IIT Madras.

Manish Jha: What is the role of CISC in laying guidelines for Indigenisation?
Dixit: The HQ IDS under the CISC is tasked with promoting and overseeing the indigenisation of defence equipment and stores. It ensures implementation of the positive Indigenisation list, which identifies Defence items and technologies to be progressively sourced from Indian manufacturers.

For the Indigenisation. the CISC's role in laying guidelines for Indigenisation encompasses coordinating tri-service requirements and creating a unified strategic outlook for indigenous platform development. Crucially, the role acts as a nodal point for commonality and interoperability between the services and the Indian Coast Guard.

Primarily, it does play a role in the formulation of a roadmap for indigenisation of ammunition, radars and tanks. Additionally, CISC encourages, facilitates, and guides the industry to meet present and future requirements of the armed forces and carry out necessary handholding. While doing so, it seeks inputs from stakeholders and takes up in relevant forums for policy reforms.

Conceptualise and prepare web web-based application hosting a list of Indian private vendors to enhance the visibility of all the available dealers to the Indian Armed Forces.

Management of the EM spectrum. is an important activity that requires prospective planning and coordination at the National & International levels. The salient aspects of this activity are as follows:

- Coordinate, liaise and facilitate harmonised allocation of spectrum among the Tri Services, DRDO & SFC, including maintenance of a spectrum management system (e-tarang) for dynamic and efficient allocation of spectrum among the three Services.
- Safeguarding defence spectrum interest in various national & International forums/meetings in coord with WPC, DoT. All Tri Services spectrum issues are effectively addressed through the apex body, i.e. Jt Electro Magnetic Board (JEMB), which is one of the COSC sub-committees.

Integrated Capability Development Plan (ICDP), which is under preparation at HQ IDS, will be a comprehensive 10-year modernisation plan of the Services, and will comprise two five-year Defence Capital Acquisition Plans

PHOTOGRAPH: HQ_IDS_India / X

The complex process of theaterisation involving multiple stakeholders is being approached by CISC in a calibrated and deliberate manner to ensure that the final structure is both effective and sustainable

- Act as the spectrum administrator for handling of Standing Advisory Committee on Frequency Allocation (SACFA) for the Tri Services.

Network Centric Warfare (NCW). is a 'Concept of Operation' in which all surveillance assets, intelligence inputs, troops, weapon systems, Logistic inputs, decision-making systems, etc, are networked to achieve greater awareness of own and the enemy's assets on the battlefield.

NCW speeds up the Information-Decision-Action (IDA) cycle and leads to compression of time (speedier actions) and expansion of space (larger coverage). The main advantage of NCW lies in faster decision-making, greater effectiveness of weapons, higher survivability of own forces, greater operational autonomy for geographically dispersed military forces, and, in general, higher tempo in the conduct of operations through shortening of the OODA loop.

Multi-platform Multi-sensor Data Fusion is a use case of NCW wherein the aggregation of information (data fusion/ correlation) from multiple sensors of different vintage and located on different platforms was challenging but made feasible through technological advancements. Further, this correlated and fused picture would be available as a Common Operating and Intelligence picture. In NCW, enhanced situational awareness would result in a larger 'Engagement Envelope' with lower risks, better manoeuvrability, and enhanced kill probabilities.

Manish Jha: Could you elaborate on the engagements and contributions of CISC in international engagements to foster regional security and cooperative solutions with other nations?
Dixit: India's global stature is rising, and so are our global defence engagements. We, at HQ IDS, are responsible for coordinating various defence cooperation activities with friendly foreign countries, which include HADR missions and Training Co-operation (both individual and collective training). It also includes Joint military exercises with more than 38 countries and capacity building of the armed forces of Friendly Foreign Countries (FFCs) in terms of organisational support, training teams, defence exports and equipment repair and maintenance support.

Our global footprint has increased substantially in the last few years, with the establishment of additional defence wings all across the globe, especially in Africa, Latin America, and the Indian Ocean Region. We regularly participate in high-level International geo-strategic military forums such as the Indo-Pacific Chiefs of Defence Conference, the Indo-Pacific Intelligence Chiefs Conference, the Shangri-La Dialogue, and the Manama Dialogue. At CISC, I am also the chair of high-level interaction mechanisms with FFCs, on behalf of the three services.

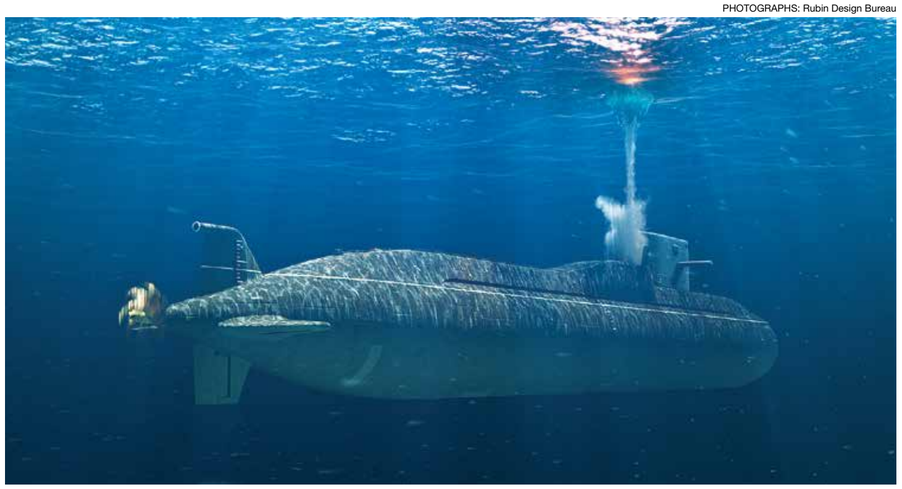
Lastly, we have come to be accepted as a "First Responder" and a "Preferred Security Partner", especially after recent Humanitarian Assistance and Disaster Relief (HADR) missions carried out by our Armed Forces in support of Friendly Foreign Countries (FFCs).

Manish Kumar Jha is a Consulting & Contributing Editor for SP's Aviation, SP's Land Forces and SP's Naval Forces and a security expert. He writes on national security, military technology, strategic affairs & policies.

Rubin Design Bureau of the United Shipbuilding Corporation: 60 Years of Cooperation with India

For 125 years, Rubin Design Bureau of the United Shipbuilding Corporation has been shaping the world's submarines, blending innovation, expertise, and enduring global partnerships

PHOTOGRAPHS: Rubin Design Bureau



(Top) Submarine Amur 1650 with Vertical Launching System (VLS) and Air Independent Propulsion (AIP);
(Above) Unmanned Underwater Vehicle Vityaz, designed and constructed by Rubin.

INDIA AND RUSSIA HAVE long-standing relations, which are distinguished by mutual trust and cooperation for the benefit of both. This strategic partnership has withstood the tests of time and is backed by the people of both countries. From the date when India gained Independence and till this day our countries are closely tied politically and economically in all spheres of international cooperation.

Military-technical aspect is one of the strongest time-proven pillars of Indo-Russian relations. Rubin Design Bureau and Indian Navy are tied by long-term partnership in designing, support of construction and delivery of several series of ships to the Indian Navy as well as assistance in their life extension. The 1st of September 2025 marked 60 years since the day when the agreement was signed for construction of four large diesel-electric submarines of Kalvari class for India. The submarines were designed by Rubin Design Bureau and were built by the Admiralty Shipyard in Leningrad (today Saint Petersburg). Both the entities are under the United Shipbuilding Corporation. The lead submarine S 23 Kalvari came to Visakhapatnam in July 1968. In December 1968, S 22 Khanderi reached India and S 21 Karanj and S 20 Kursura arrived in October and December 1970, respectively. Thus, foundation was laid for a long-lasting cooperation between Rubin Design Bureau and Indian industry.

Year 2025 is remarkable for Rubin Design Bureau for one more date - 125th birth anniversary of the Design Bureau. During this time, more than 1000 submarines were built to designs developed by Rubin including over 100 ones for export. Rubin is a designer of nuclear and non-nuclear submarines. Working in two directions simultaneously we are capable of employing scientific and technical solutions being practised for both nuclear and non-nuclear submarines. Rubin being a leading design bureau of the United Shipbuilding Corporation keeps working on improvements of different types of submarines and new advanced projects.

Rubin Design Bureau and its subcontractors have vast competences and ensure a full cycle from construction of submarines to their refit and modernisation. Rubin develops design documents, supports construction and trials, refit and modernisation, provides for designer's supervision throughout the life cycle of submarine. Our employees work at shipyards in Russia and customers' countries as well as participate actively in training of submarine designers and crews. In addition to submarine designing, Rubin has experience in the development of training systems. In cooperation with United Shipbuilding Corporation's enterprises, it is possible to develop a project of training centre in customer's country, support its construction and outfit it with training simulators.

Over 600 companies are involved in the creation of submarines – developers and vendors of equipment, automatic systems and electronic warfare systems. Rubin Design Bureau coordinates and directs activities of all cooperating partners. Today, Rubin provides support for batch construction of nuclear and non-nuclear submarines of the fourth generation, undertaking work on the fifth generation and fulfilling contractual obligations towards foreign customers. About 15 years ago, Rubin proceeded to a new activity area – marine robotics. On May 9, 2020, Unmanned Underwater Vehicle Vityaz, designed and constructed by Rubin through the request of the Russian Foundation for Advanced Research Projects (RFARP), accomplished the world's first fully autonomous mission in the Mariana Trench. Now, the order portfolio of the leading Design Bureau contains small as well as large and extra-large research vessels with increased diving depth intended for oceanographic work, geological and prospecting survey in the World Ocean. We conduct a number of initiative developments for extension of vessel functions and increase in endurance aiming to their employment in the interests of both offshore mining companies and research and development establishments.

Submarine projects offered by Rubin Design Bureau feature high variability. Hallmark of Russian submarines is their striking capability and stealth. Submarine Amur 1650 with Vertical Launching System (VLS) and Air Independent Propulsion (AIP) has the largest ammunition among conventional submarines in the world – up to 28 weapon units. Amur 1650 with VLS can be fitted up with Club-S cruise missiles or Russian-Indian ultrasonic missiles BrahMos. The extensive missile arsenal can strike both land and surface targets. Thus, the non-nuclear submarine is capable of handling a wide range of tasks in a theatre of war operations. A wide variety of acoustic protection means, streamlined hull design and equipment with reduced noise contribute to the submarine's low signature.

Through our multi-year partnership in the field of defence cooperation, we have gained wide experience in creation of advanced systems, and we are ready to employ it in the projects of any level of complexity.

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"ICG - A True Force Multiplier" – Defence Minister Rajnath Singh

Defence Minister calls for Futuristic Roadmap, Technological Vigilance and Indigenous Strengthening of Maritime Security while addressing the Indian Coast Guard Commanders' Conference in New Delhi

■ SP'S CORRESPONDENT

PHOTOGRAPH: PIB

Defence Minister Rajnath Singh at the inaugural session of the 42nd Indian Coast Guard (ICG) Commanders' Conference at ICG Headquarters, in New Delhi

SINCE ITS ESTABLISHMENT, INDIAN Coast Guard (ICG) has apprehended 1,638 foreign vessels and 13,775 foreign fishermen involved in illegal activities within Indian waters. It has also seized 6,430 kilograms of narcotics, valued at ₹37,833 crore, highlighting its increasing effectiveness in combating transnational maritime crime. The ICG's dedication to Search and Rescue (SAR) operations has been notable, with 76 missions conducted by July this year, saving 74 lives, and a cumulative record of over 14,500 lives rescued in disaster response operations. The ICG has also demonstrated operational readiness and environmental protection capabilities during critical incidents.

Defence Minister Rajnath Singh addressed the inaugural session of the 42nd Indian Coast Guard (ICG) Commanders' Conference in ICG Headquarters, New Delhi on September 29, 2025, lauding the force's professionalism and humanitarian service while underlining its critical role in safeguarding India's 7,500-km-long coastline and island territories. The three-day Conference, being held from September 28 to 30, 2025, brings together the service's senior leadership to deliberate on strategic, operational, and administrative priorities in the backdrop of evolving maritime security challenges and the growing strategic significance of the Indian Ocean Region.

Defence Minister described ICG as a vital pillar of national security, which has transformed itself from a modest fleet at inception into a formidable force with 152 vessels & 78 aircraft. Defence Minister added that ICG has consistently earned the trust of citizens as well as global recognition for professionalism and humanitarian service.

Role Across Internal and External Security

Rajnath Singh underscored the ICG's unique mandate of operating at the intersection of external and internal security. He stated that while the Armed Forces focus on defending from external threats and other agencies handle internal security, the ICG seamlessly straddles both spheres. "By patrolling the Exclusive Economic Zone (EEZ), the ICG not only deters external threats but also addresses illegal fishing, drug and arms trafficking, smuggling, human trafficking, marine pollution, and irregular maritime activities," he added.

Defence Minister praised the ICG's role in multi-agency coordination with the Navy, state administrations, and other security agencies, calling it one of its greatest strengths. "The seamless manner in which the ICG works in real time with civil administration and other forces strengthens the entire national security architecture. You are no longer just a security provider you are a true force multiplier," he highlighted.

Indigenisation and Self-Reliance

Rajnath Singh reaffirmed the government's commitment to modernising the ICG, noting that nearly 90 per cent of its capital budget is allocated to indigenous assets. He hailed the progress made in building, repairing, and servicing ships and aircraft within India, calling it a significant milestone in Atmanirbharta. "This has enhanced the operational strength of the ICG while boosting India's shipbuilding sector & economy due to which security and self-reliance are progressing hand in hand," he underlined.

Emerging Technology-Driven Challenges

Defence Minister underlined that maritime threats are becoming increasingly technology-driven and multi-dimensional. "What were once predictable patterns of smuggling or piracy have now evolved into sophisticated operations using GPS spoofing, remote-controlled boats, encrypted communications, drones, satellite phones, and even networks operating on the dark web," he stated. He also warned that terrorist organisations, exploit modern tools such as digital mapping and real-time intelligence to plan their activities.

"Traditional methods are no longer sufficient, we must be ahead of criminals and adversaries by integrating Artificial Intelligence, Machine Learning-based surveillance, drones, cyber defence systems, and automated response mechanisms into our maritime security framework," highlighted Rajnath Singh.

Preparing for Cyber and Electronic Warfare

Defence Minister cautioned that cyber and electronic warfare are no longer hypothetical threats but present-day realities. "A nation may attempt to paralyse our systems not with missiles, but through hacking, cyber-attacks, and electronic jamming. ICG must continuously adapt, upgrading its training and equipment to guard against such threats. Automated surveillance networks and AI-enabled systems are essential to reduce response times to seconds and ensure readiness at all times," he said.

Futuristic Roadmap for 2047

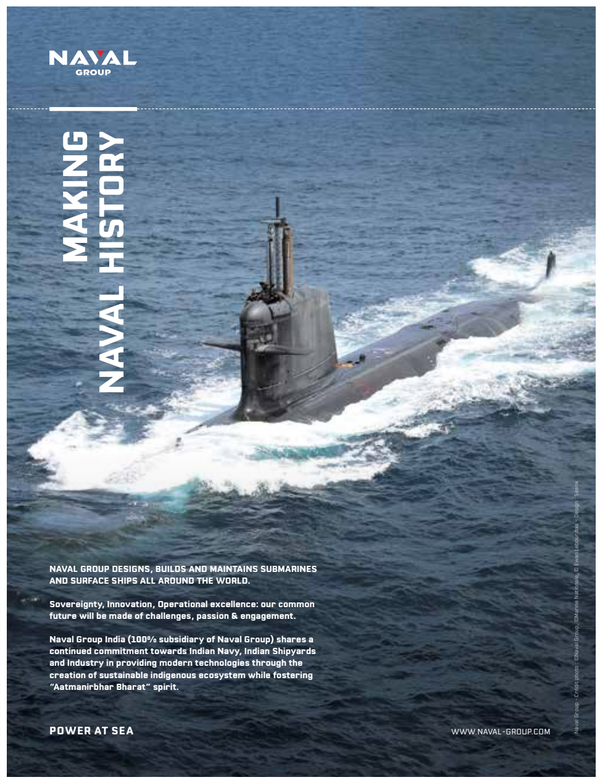
Rajnath Singh urged the ICG to develop a futuristic roadmap that anticipates new challenges, integrates cutting-edge technologies, and continuously adapts strategies. He reminded the commanders that warfare is now measured in hours and seconds, not months, with satellites, drones, and sensors redefining the nature of conflict. Preparedness, adaptability, and rapid response must be the cornerstones of the ICG's vision, he added.

Defence Minister underscored that India's march towards becoming a developed nation by 2047 rests on the twin pillars of prosperity and security. He invoked the ICG's motto, 'Vayam Rakshamah' (We Protect), calling it not just a slogan but a pledge. "It is this pledge, embedded in every ICG personnel, that will ensure we hand over a strong, secure, and self-reliant India to future generations," he affirmed.

ICG Commanders Conference 2025

The Conference focuses on enhancing inter-service coordination, strengthening maritime domain awareness, and ensuring that future capabilities align with India's national maritime priorities. Distinguished participants, including the Chief of the Naval Staff and the Engineer-in-Chief engaged in discussions covering operational performance, logistics, human resource development, training, and administration, with a strategic emphasis on bolstering India's maritime presence.

Director General ICG Paramesh Sivamani inaugurated the Conference, presenting an overview of recent achievements, operational challenges, and the strategic vision for the service. A strong focus on indigenisation and self-reliance was emphasised, with the ICG's growing reliance on indigenous platforms and technologies reflecting the Government's vision of Atmanirbhar Bharat. Defence Secretary Rajesh Kumar Singh, Secretary (Defence Production) Sanjeev Kumar and senior officials from MoD & ICG were also present on the occasion.



Mikheev Alexander,
Director General of Rosoboronexport

Rosoboronexport
Silver Anniversary

Since its foundation in 2000, Rosoboronexport has been the only state intermediary for the export and import of weapons, technologies, and military and dual-use services. Today, more than 85 per cent of Russian military supplies pass through the company with the order portfolio of $60 billion.

PHOTOGRAPHS: Rosoboronexport

THE CREATION OF ROSOBORONEXPORT has brought strategic advantages. The country regained its position in the traditional markets since the Soviet era and entered new ones. The volume of arms shipments has doubled in five years, tripled in ten, and increased more than fivefold by 2021. Export orders have become a lifeline for defense companies at a time when domestic orders were low. They made it possible to load factories, preserve engineering schools and maintain technological independence. Today, Rosoboronexport ensures Russia's presence in all regions of the world. Over the past 25 years, the company has concluded over 30,000 contracts with partners, and exported products worth more than $230 billion.

"Rosoboronexport today is a unique company, drawing on the extensive experience of its predecessors in the domestic sphere of military-technical cooperation with foreign countries", - said Alexander Mikheev, Director General of Rosoboronexport. "We utilize the best practices of foreign economic activity, scaling them up in today's rapidly changing environment", - Head of Special exporter added.

To meet modern requirements Rosoboronexport will continue to strengthen its status as a global technology leader in military-technical cooperation and expand its supply geography to promising markets in Asia, Africa and the Middle East. The company has everything it needs for success — a powerful industrial base, a professional team, and government support.

Recent years have confirmed the high efficiency of Russian technology in real combat conditions. "Today, most of the samples being offered by Rosoboronexport have sufficient experience of use in real combat conditions. Our customers study this experience and draw conclusions in favor of our products," emphasized Alexander Mikheev. Besides, the Russian industry has demonstrated its ability to respond promptly to new challenges and introduce technological improvements into mass production as soon as possible.

The company's activities have long gone beyond simple arms supplies. An important area was the organization of licensed production of Russian aircraft, helicopters, armored vehicles and small arms abroad. Such projects allow partners to create their own enterprises and adopt technologies, while maintaining Russian control over quality and safety. The modernization of previously supplied equipment also plays an important role. Russian designers have developed comprehensive programs to extend the service life and improve combat performance for all classes of weapons. A separate area is the training of foreign specialists. With the assistance of Rosoboronexport, foreign customers train crews under the guidance of the best Russian instructors.

(Top) Project 677 diesel-electric submarine (export version Amur 1650); (Above) Project 12701 Alexandrit-E coastal mine sweeper.

In his address to Rosoboronexport on the eve of the Anniversary, Vladimir Putin emphasized that "military-technical cooperation with foreign countries has always been and remains a key area of state policy. Effective work in this area determines greatly the federal budget's revenues and the modernization of the defense industry, thereby ensuring the stable development of enterprises and entire cities, as well as the well-being of many thousands of people. Therefore, it is crucial that your organization, which accounts for a significant portion of military exports, successfully promotes domestic products in foreign markets".

The Russian President concluded: "I am confident that Rosoboronexport's employees will continue to uphold the prestige of Russian military equipment and weapons on the international stage, contribute to the economic recovery of our country, and strengthen its defense potential."

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Navantia will build two new OPVs for the Spanish Navy

THE GOVERNMENT OF SPAIN has authorised the commencement of the contracting process for Navantia to design and construct two new Offshore Patrol Vessels (BAM), which will be added to the six already in service (Meteoro, Rayo, Relámpago, Tornado, Audaz, and Furor). The aim is to reinforce maritime surveillance and security, as well as to maintain the operational capability of the Navy's maritime action force.

The new BAMs, with a budget of 716 million euros, will incorporate substantial improvements over their predecessors, both in operational capabilities and living conditions for the crew. Engineering work is set to begin once the contract is signed, with production expected to commence in the first half of 2027.

These new units will feature an updated combat system, a next-generation Integrated Platform Management System (IPMS), enhancements to communication and navigation systems, advanced cybersecurity measures, integration of unmanned vehicles, new workspaces and medical facilities, as well as increased accommodation capacity for crew members.

These improvements will enable the Navy to address current maritime security challenges more effectively, while also enhancing the quality of life for personnel on board.

The engineering for this second extension of the BAM programme will be developed entirely using the digital tools of the ELCANO programme, which is owned by Navantia and based on Siemens technologies. This environment enables the integration of design, modelling, simulation, and construction in a connected digital workflow, incorporating the latest advancements in Navantia's digital transformation.

Construction will take place at Navantia's Puerto Real facilities, which are equipped with a high level of automation and advanced technology. Part of the manufacturing process will be carried out in the flat block workshop, which features a state-of-the-art automated line currently in its final commissioning phase. This line will shortly begin operating at full capacity to build blocks for the UK's Fleet Solid Support (FSS) programme.

This technological leap will revolutionise shipbuilding, thanks to a welding system that increases production speed, reduces heat input, and minimises deformation, resulting in higher quality products.

NAVANTIA TO ENHANCE THE CAPABILITY OF TWO OPVS FOR THE ROYAL THAI NAVY

Navantia has signed a new contract with the Royal Thai Navy to modernise two Pattani-class Offshore Patrol Vessels whose systems need to be upgraded. Navantia will carry out the engineering, supply, and integration of a new combat system, the core of which is the CATIZ, a high-tech system developed by Navantia Sistemas, as well as other advanced systems from other manufacturers. Additionally, Navantia will provide lifecycle support documentation and ensure training in the operation and maintenance of the system. This is the second contract Navantia has signed with the Thai Navy in 2025, reinforcing the position of the company in the Southeast Asian market. In April, Navantia was awarded the modernisation of an LPD ship. The company had also built the HTMS Chakri Naruebet (911) aircraft carrier, the flagship of the Thai fleet.

TKMS SIGNS MoU WITH VEM TECHNOLOGIES

TKMS signed a Memorandum of Understanding (MoU) with Hyderabad based VEM Technologies Pvt Ltd, specialising in design, development and manufacturing of weapon systems and fuselage and systems for airborne systems. The agreement lays the foundation for the development, production, integration, testing and modernisation of heavyweight torpedoes. Supported by TKMS and its segment ATLAS ELEKTRONIK, VEM Technologies Pvt Ltd will take over the integration and testing of the torpedoes in India.

In addition to the Memorandum of Understanding, TKMS is also intensifying its cooperation with the Indian company CFF Fluid Control Limited, which specialises in mechanical, electronic, and weapon systems for Indian Navy. The aim is to advance the development and production of state-of-the-art Anti-submarine warfare (ASW) systems for surface vessels and various other strategic applications.

MDL TO DEVELOP GREENFIELD SHIPYARD ON EASTERN COAST

Under the framework of the Government of India's Maritime Amrit Kaal Vision 2047, Mazagon Dock Shipbuilders Limited (MDL) has inked a Memorandum of Understanding (MoU) with Guidance Tamil Nadu, the state's nodal agency for investment promotion and facilitation, on September 19, 2025, to explore the development of a world-class greenfield shipyard on India's eastern coast. The MoU was formally signed and exchanged between Biju George, Director (Shipbuilding), MDL, and Dr Darez Ahamed, Managing Director & CEO, Guidance Tamil Nadu, during a ceremony organised by the Ministry of Ports, Shipping and Waterways.

FPV ICGS AKSHAR COMMISSIONED

Indian Coast Guard Ship (ICGS) Akshar, the second in a series of eight Adamya-class Fast Patrol Vessels (FPVs), was commissioned at Karaikal, Puducherry on October 4, 2025. The 51-metre-long vessel has been designed and built indigenously by Goa Shipyard Limited. With over 60 per cent indigenous content, ICGS Akshar stands as a testament to India's growing maritime capabilities under the Government's 'Make in India' initiative.

The ship displaces approximately 320 tonnes and is propelled by two 3,000 KW diesel engines, enabling a maximum speed of 27 Knots. It has an endurance of 1,500 nautical miles at an economical speed. Its weaponry includes a 30mm CRN 91 gun and two 12.7 mm Stabilised Remote-Controlled Guns (SRCG), integrated with fire-control systems. The vessel also features an Integrated Bridge System (IBS), Integrated Platform Management System (IPMS), and Automated Power Management System (APMS), augmenting operational efficiency and automation. Earlier, FPV Indian Coast Guard Ship (ICGS) 'Adamya', the first ship of the eight in series Adamya-class Fast Patrol Vessels (FPVs) was commissioned at Paradip Port, Odisha on September 19, 2025.

DELIVERY OF DIVING SUPPORT CRAFT TO INDIAN NAVY

DSC A20, the first indigenously designed and constructed Diving Support Craft was delivered by Titagarh Rail Systems Ltd (TRSL), Kolkata to the Indian Navy on September 16, 2025 at Kolkata. The contract for building 5 x Diving Support Craft (DSC) was signed between MoD and Titagarh Rail Systems Limited (TRSL), Kolkata on February 12, 2021. DSC A20 is designed to undertake diving operations in coastal waters and is being fitted with state-of-the-art diving equipment. The ship is indigenously designed and built under relevant Naval Rules and Regulations of Indian Register of Shipping (IRS).

INDUCTION OF SIXTH 25T BOLLARD PULL TUG

Induction ceremony for sixth 25T Bollard Pull (BP) Tug Sabal was held on September 4, 2025 at Naval Dockyard, Visakhapatnam. This is the last Tug of the contract for construction of six 25T BP Tugs concluded with Titagarh Rail Systems Limited (TRSL), Kolkata on November 12, 2021. The Shipyard has indigenously designed and built these Tugs in accordance with Naval rules and regulations of the Indian Register of Shipping (IRS). These Tugs are utilised by Indian Navy to provide assistance to Naval Ships and Submarines during berthing/ un-berthing and manoeuvring in confined waters. They will also provide afloat firefighting support to ships alongside or at anchorage.

LAUNCH OF ELEVENTH AMMUNITION CUM TORPEDO CUM MISSILE (ACTCM) BARGE

Launch ceremony of 11th ACTCM Barge, LSAM 25 (Yard 135) was held on September 8, 2025 at Suryadipta Projects Pvt Ltd, Thane. The contract for construction of eleven (11) Ammunition Cum Torpedo Cum Missile Barge was concluded with an MSME Shipyard, Suryadipta Projects Pvt Ltd, Thane on March 5, 2021. These Barges have been indigenously designed and built by the Shipyard in collaboration with an Indian Ship Design firm and Indian Register of Shipping (IRS) respectively. Model testing was undertaken at Naval Science and Technological Laboratory (NSTL), Visakhapatnam for seaworthiness. The Shipyard has successfully delivered ten of eleven Barges till date and are being effectively utilised by Indian Navy for its operational evolutions.

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