

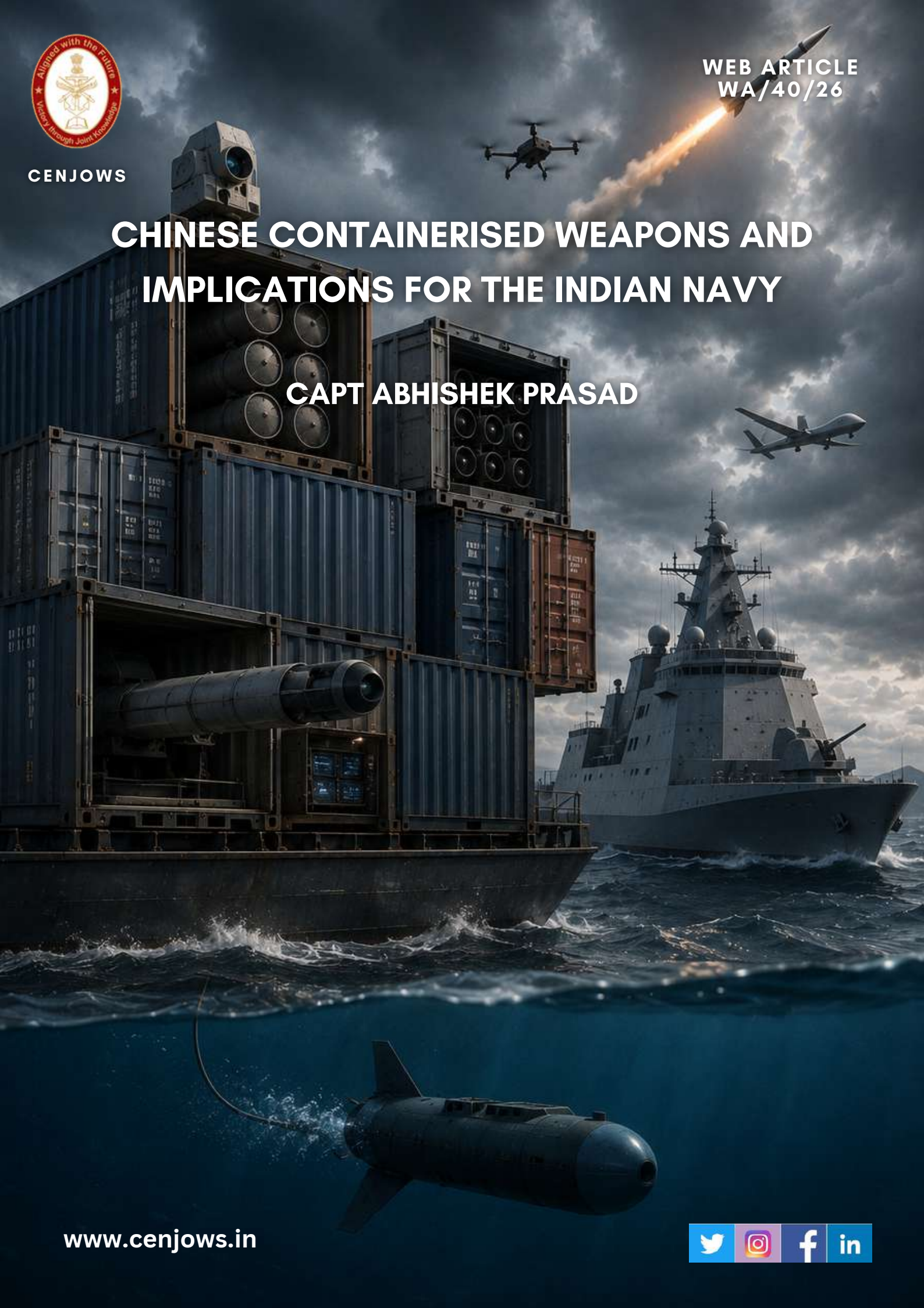


CENJOWS

WEB ARTICLE
WA/40/26

CHINESE CONTAINERISED WEAPONS AND IMPLICATIONS FOR THE INDIAN NAVY

CAPT ABHISHEK PRASAD



CENTRE FOR JOINT WARFARE STUDIES



CENJOWS

Chinese Containerised Weapons and Implications for the Indian Navy



Capt Abhishek Prasad is a gunnery specialist and has served on Veer and Talwar-class ships and commanded INS Survana

Abstract

People's Liberation Army Navy (PLAN)'s demonstration of containerised modular weapons on Motor Vessel (MV) Zhong Da 79 in Dec 2025 indicates a deviation from established precedent in scale, institutional backing and declared industrial intent. This brief examines the technical basis of the containerised weapons programme of PLAN, situates it within the history of disguised and containerised weapons, and assesses its implications for a region through which an estimated 90,000 to 100,000 vessels transit annually. It argues that the effect will be the erosion of a distinct line between a merchant vessel and a combatant. The brief evaluates India's current response architecture and proposes specific recommendations.

Key Words

Containerised Weapons, Q-Ship, Maritime Domain Awareness (MDA), IFC-Indian Ocean Region (IOR), Ballistic Missile Defence (BMD), Sea Lines of Communication (SLOC), Arsenal Ship, Atmanirbhar Bharat

Introduction

In December 2025, a Chinese MV Zhong Da 79, was observed at the Hudong-Zhonghua shipyard in Shanghai. The vessel was fitted with containerised close-in weapon systems (CIWS), a 60-cell vertical launch system (VLS) and radar sensors.¹ Weeks later, the same vessel was seen equipped with a modular electromagnetic catapult capable of launching unmanned aircraft, including medium-altitude long- endurance drones.² The equipment packed in standard shipping containers could be removed just as quickly as it was bolted on the ship. By early January 2026, most of the weapon containers had already been taken off the vessel.³ The programme is coordinated by the Beijing Institute of Technology's School of Mechanical Engineering, with more than seventy participating enterprises, including the China State Shipbuilding Corporation, NORINCO, China Aerospace Science and Industry Corporation (CASIC), China Aerospace Science and Technology Corporation (CASC), China Electronics Technology Group Corporation (CETC) and Aviation Industry Corporation of China (AVIC) named explicitly.⁴ A stated annual production target of 2,000 module sets spans air defence, anti-ship, anti-submarine, land attack, radar, electronic warfare, underwater warfare and command-and-control modules.⁵



Figure 1: MV Zhong Da 79

What We Need to Learn

The following key points emerge from an assessment of the programme:

- **Concealment at Scale.** The 60-cell VLS and associated sensors demonstrated in December 2025 were reconfigured within weeks into a lighter aviation-focused loadout, reportedly reduced to 24 VLS cells to accommodate the electromagnetic catapult and drone-handling equipment, indicating that the loadout is intended to be modular and mission-adjustable rather than fixed.⁶
- **Independence.** The truck-mounted variant of the same electromagnetic catapult, comprising three or more heavy vehicles linked to form a continuous launch rail, has been demonstrated launching a fixed-wing drone, confirming the system's designed independence from a dedicated flight deck or airfield.⁷
- **Naval Technology Transfer.** Analysts have noted the vessel's proximity, during fitting, to Sichuan, China's first Type 076 amphibious assault ship, which itself uses an integrated electromagnetic launch system, suggesting a technology relationship between the Navy's dedicated platforms and this modular, merchant-hull-compatible variant.⁸
- **Scale.** A production target of 2,000 module sets a year, even if only partially realised, implies an industrial intent to generate combat mass rapidly across a large number of hulls. United States Naval Institute (USNI) has described the demonstration as showing Beijing's capacity to field launch platforms across potentially hundreds of civilian platforms, with the implication that merchant ships could support large-scale combat operations or surprise attacks against airfields or ports.⁹



Figure 2: Possible Configurations of Containerised Weapons

- Precedent Exists.** Containerised and disguised weapons are not novel. Russia's Club-K system has packaged land-attack and anti-ship cruise missiles inside standard shipping containers for over a decade on an explicitly deniability-oriented premise, and the Q-ship of both World Wars served an analogous purpose. What distinguishes this programme is scale, institutional backing and declared industrial ambition.
- Identification.** This approach to containerising weapons allows ships to maintain their civilian appearance and status until their offensive capabilities are activated, which complicates threat identification considerably in any future conflict zone.¹⁰ Naval planning depends on classifying vessels with reasonable confidence; this programme deliberately erodes that classification for an entire category of shipping.

Where We Are

The relevance of this threat to India is best appreciated through the volume of traffic the IOR carries every year. An estimated 90,000 to 100,000 vessels transit the IOR annually, carrying close to a third of the world's containerised cargo and over 40 percent of global crude oil traded from and within the region.¹¹ India's own trade dependency compounds this exposure directly: approximately 90 to 95 percent of India's trade by volume moves

by sea.¹² This volume of traffic means the threat cannot be treated as a discrete wartime contingency to be addressed separately from peacetime operations.

India's Phase-II ballistic missile defence programme, built around the AD-1 (endo-atmospheric) and AD-2 (exo-atmospheric) interceptors, has matured considerably, with flight tests on 10 and 11 June 2026 validating capability against threats extending to intercontinental-ballistic-missile-class ranges.¹³ Defence Research and Development Organisation (DRDO) and the Navy have separately initiated work to integrate Phase-II interceptors onto frontline destroyers, building on earlier sea-based trials from INS Anvesh.¹⁴ It addresses, however, a different engagement problem from the one a Zhong Da 79-type vessel poses. The main issue in this case would be countering a vertical-launch cell fired at close range from a merchant hull, which calls for point and area self-defence and early identification as capabilities complementary to, rather than substitutable for, ballistic missile defence.

An equally important requirement sits in the informational domain. Port call histories, ownership and flag-state changes, cargo manifests and Automatic Identification System (AIS) anomalies are held by multiple intelligence agencies today. The IFC-IOR already provides a mature and well-regarded mechanism for fusing precisely this kind of MDA awareness across agencies and partner navies. The opportunity, therefore, is to extend its established analytical categories to explicitly cover ambiguous, container-modified hulls, a threat category that postdates its original design brief.

Strategic/Operational Issues

- **Complementary Capabilities.** BMD and CIWS defence against an ambiguous merchant hull would merit distinct engagement geometries, timelines and sensor requirements.
- **Scope for Deeper Interagency Fusion.** MDA inputs relevant to identifying an ambiguous hull are currently held across the Coast Guard, DG Shipping, Customs and intelligence agencies. There exists a need to fuse IFC-IOR's information with the relevant inputs to treat this specific risk, as a standing analytical category would build on a mechanism that is already well established.

- **Magazine Depth and At-Sea Replenishment.** USS Carney and USS Arleigh Burke expended substantial numbers of interceptors defending against Iranian ballistic missile and drone attacks over the eastern Mediterranean in April 2024, and both vessels were required to return to base to rearm, since no at-sea vertical-launch-system reload capability existed at the time.¹⁵ The US Navy's first successful at-sea VLS reload trial took place only in October 2024.¹⁶ Indian destroyers, with fewer VLS cells than their American counterparts, would face this problem at least as acutely.
- **Legal and Ethical Ambiguity.** There is no settled legal or ethical framework, domestically or internationally, for classifying and engaging a nominally civilian vessel carrying concealed combat systems, creating risk of hesitation or unintended escalation for commanders operating under uncertainty.

Recommendations and Way Ahead

- **Expand the IFC-IOR Mandate.** The fused MDA aggregated by IFC-IOR should include an explicit ambiguous-hull, container-modified category and standing escalation protocol, rather than treating each anomaly as a one-off investigation.
- **Standardise Transparency Reporting.** India should push, through IFC-IOR and bilaterally with regional partners, for standardised reporting of ownership structure, modification history and unusual port calls for vessels linked to companies known to participate in dual-use shipbuilding programmes.
- **Prioritise Point and Area Self-Defence.** Layered CIWS and short-range surface-to-air missile capability should be treated as a first-order design requirement for high-value units operating within range of contested waters, separate from ballistic missile defence investment.
- **Build on the Arsenal Barge Proposal.** Rear Admiral Monty Khanna (Retd) has proposed a minimally manned arsenal barge carrying 12 to 48 vertical-launch cells, operating as an offboard magazine for a destroyer or frigate through a Cooperative Engagement Capability-enabled combat system.¹⁷ SECON Engineering Projects

has built and delivered Missile Cum Ammunition Barges for the Indian Navy since 2021, on hull forms suited to a comparable class of vessel.¹⁸ A VLS-equipped variant would extend this proven domestic shipbuilding capability rather than requiring a new one and merits structured trials to assess targeting and data-link maturity for confident remote firing.

Conclusion

China's containerised modular weapons programme should not be read narrowly as a problem to be solved by counting hulls and modules. Its principal effect is to erode the distinction between merchant vessel and combatant that naval planning has long relied upon as a stable premise. Given the volume of shipping transiting the IOR daily, this is a condition India's maritime forces will need to operate in the future. Identification, self-defence, magazine depth and interagency fusion are recommended as four complementary tracks that would build on capabilities and mechanisms already in place.

Declaration

I declare that this manuscript is being submitted exclusively to CENJOWS for publication consideration, is original, and has not been published or submitted elsewhere. I further certify that it contains no classified, restricted, or sensitive information and is based entirely on open-source material suitable for publication in the public domain.

ENDNOTES

-
- ¹ Sam LaGrone, "Chinese Merchant Ship Sports Electromagnetic Drone Launcher, Vertical Launching Systems," USNI News, January 7, 2026, <https://news.usni.org/2026/01/07/chinese-merchant-ship-sports-electromagnetic-drone-launcher-vertical-launching-systems> (accessed on July 4, 2026).
 - ² The War Zone, "China's Truck-Mounted Electromagnetic Aircraft Catapult Seen In Action For The First Time," accessed July 2026, <https://www.twz.com/news-features/chinas-truck-mounted-electromagnetic-aircraft-catapult-seen-in-action-for-the-first-time> (accessed on July 4, 2026).
 - ³ South China Morning Post, "Is China's Truck-Mounted Catapult System Enabling Merchant Aircraft Carriers?," January 1, 2026, <https://www.scmp.com/news/china/military/article/3338331/chinas-truck-mounted-catapult-system-enabling-merchant-aircraft-carriers> (accessed on July 4, 2026).
 - ⁴ The War Zone, "China's Truck-Mounted Electromagnetic Aircraft Catapult Seen In Action For The First Time" (accessed on July 4, 2026).
 - ⁵ The Defense News, "China Unveils First Truck-Mounted EMALS for Runway-Independent Drone Launches," citing Beijing Institute of Technology, School of Mechanical Engineering, <https://www.thedefensenews.com/China-Unveils-First-Truck-Mounted-EMALS-for-Runway-Independent-Drone-Launches/> (accessed on July 4, 2026).
 - ⁶ Driving Eco, "China Installs Electromagnetic Catapults on Commercial Ships: Beijing's New Strategy to Militarize Its Civilian Fleet," January 9, 2026, <https://www.drivingeco.com/en/china-instala-catapultas-electromagneticas-barcos-comerciales-nueva-estrategia-pekín-militarizar-flota-civil/> (accessed on July 4, 2026).
 - ⁷ South China Morning Post, "Could China's Containerised Aircraft Launcher Reshape Rules of Modern Warfare?," <https://www.scmp.com/news/china/military/article/3359193/could-chinas-containerised-aircraft-launcher-reshape-rules-modern-warfare> (accessed on July 4, 2026).
 - ⁸ Driving Eco, "China Installs Electromagnetic Catapults on Commercial Ships" (accessed on July 4, 2026).
 - ⁹ Sam LaGrone, "Chinese Merchant Ship Sports Electromagnetic Drone Launcher, Vertical Launching Systems" (accessed on July 4, 2026).
 - ¹⁰ Driving Eco, "China Installs Electromagnetic Catapults on Commercial Ships" (accessed on July 4, 2026).
 - ¹¹ NITI Aayog, "Gondwana: Economic Integration of Indian Ocean Region," February 2026, <https://niti.gov.in/sites/default/files/2026-02/Gondwana-Economic-Integration-of-Indian-Ocean-Region.pdf> (accessed on July 4, 2026).
 - ¹² International Journal of Political Science and Governance, "Emerging Security Imperatives for India in the Indian Ocean," <https://www.journalofpoliticalscience.com/uploads/archives/8-2-46-504.pdf> (accessed on July 4, 2026).
 - ¹³ Republic World, "India Joins Elite Group as DRDO Conducts Three Successful Flight Tests of Multi-Layered Ballistic Missile Defence & Naval Anti-Ship Missile," June 13, 2026, <https://www.republicworld.com/defence/india-joins-elite-group-as-drdo-conducts->

three-successful-flight-tests-of-multi-layered-ballistic-missile-defence-naval-anti-ship-missile-2026-06-13-128051 (accessed on July 4, 2026).

¹⁴ Indian Masterminds, "Tri-Domain Defence: India Moves Toward Layered Shield with Sea-Based Missile AD-1 and AD-2 Interceptors Integration," December 8, 2025, <https://indianmasterminds.com/news/india-sea-based-bmd-ad1-ad2-warships-166326/> (accessed on July 4, 2026).

¹⁵ Monty Khanna, "Revisit the Arsenal Ship . . . As a Barge," Proceedings 152, no. 1 (January 2026), <https://www.usni.org/magazines/proceedings/2026/january/revisit-arsenal-ship-barge> (accessed on July 4, 2026).

¹⁶ Khanna, "Revisit the Arsenal Ship . . . As a Barge," citing Gidget Fuentes, "Navy Conducts First Successful Tests Reloading Missiles and Rearming Warships at Sea," USNI News, October 14, 2024 (accessed on July 4, 2026).

¹⁷ Khanna, "Revisit the Arsenal Ship . . . As a Barge" (accessed on July 4, 2026).

¹⁸ ANI, "Indian Navy Gets Fifth Missile-Cum-Ammunition Barge," June 11, 2026, <https://www.bignewsnetwork.com/news/274402914/indian-navy-gets-fifth-missile-cum-ammunition-barge> (accessed on July 4, 2026).