



INDIA'S COMPREHENSIVE MARITIME SECURITY CHALLENGES: ALTERNATIVES AND MITIGATION REQUIREMENTS

Sushil Kumar Singh

Research Scholar at University of Allahabad in Department of Defence and Strategic Studies

ABSTRACT

India faces a wide range of maritime security concerns in both traditional and non-traditional sectors as a result of its extensive coastal frontage in the northern Indian Ocean. While traditional risks are primarily caused by the activities of Pakistan and China's maritime entities in the northern Indian Ocean and their generally antagonistic agendas, non-traditional risks are either caused by rogue non-State actors acting from, on, or through the sea or result from natural or man-made causes. In order to chart a course toward ensuring India's own comprehensive maritime security and serving as a net provider of security for its immediate maritime neighbours, the Indian maritime security establishment must adopt a multi-pronged approach of accepting, avoiding, controlling, reducing, and monitoring such challenges.

"The vital feature which differentiates the Indian Ocean from the Atlantic and the Pacific is not the two sides but the sub-continent of India which juts far out into the sea for a thousand miles to its tapering end at Cape Comorin. It is the geographical position of India that changes the character of the Indian Ocean."

KM Panikkar

Despite holding a naturally endowed dominant position in the Indian Ocean region (IOR), as succinctly put by Sardar Panikkar, India paid a high price for its proverbial "sea-blindness" in the past. However, it has now acknowledged its proper place in the geopolitical affairs of the region. As a result, it recognises the new security dangers brought on by modern geopolitical dynamics, as well as the non-traditional threats caused by natural disasters and man-made causes, and is prepared to perform its rightful role as a reliable "net supplier of security" in the region.

This essay initially examines India's marine challenges, both conventional and unconventional. The available options and methods for their mitigation are then offered.

THREATS TO INDIA'S MARITIME SECURITY IN THE PAST

The proactive animosity of two States, Pakistan and China, and the related operations of their maritime organisations in the northern IOR, in particular, have historically posed a threat to modern India's maritime security. Two security situations for India could develop in this context. The first would be because China has properly supported Pakistan's notion of operations in the Arabian Sea, whether explicitly or secretly. The other could show up when China's other maritime

assets and its naval force, which is becoming increasingly high-tech enabled, signal an unmistakably proactive intent within the IOR, particularly within its northern portion, with the potential to negatively impact India's economic and security interests.

SCENARIO 1 THE "CONCEPT OF OPERATION IN THE ARABIAN SEA" BY PAKISTAN

In December 2018, Pakistan published its first-ever maritime doctrine, titled "Preserving Freedom of Seas," in which it identifies the western Indian Ocean as an extension of the north Arabian Sea as its main area of interest. According to this philosophy, "the adversary's [read: India] nuclearization of the Indian Ocean has upped stakes in the region." The Pakistan Navy (PN) promotes a strategy of provocative and flexible mobility utilising maritime space in order to create enough deterrence against this purported enemy's objective. The PN strategy also calls for "hitting first with the greatest impact and the least amount of power."

In order to "high-intensity diversion and disruption of enemy sea lines of communications (SLOCs)... to dominate the war theatre," according to Pakistan's maritime doctrine, submarines should be used. The Yuan Class submarines, eight of which are being imported from China, fitted with air-independent propulsion (AIP) systems, and outfitted with cutting-edge fire-control and decision-making technologies, would undoubtedly be the best options in this endeavour. However, it is clear that the PN's current lack of capabilities would prevent it from carrying out the major objectives outlined in Pakistan's maritime strategy. Therefore, allying with China is the only option to adhere to its doctrinal instruction of "striking first with maximum effects and minimum application of force."



This will make it possible for the PN to utilise Chinese high-technology support infrastructure for its operational needs. For instance, PN ships and submarines would be able to conduct out precision targeting of enemy assets as well as interdict Indian SLOCs in Pakistan's near-coast areas with access to restricted positioning signals from the Beidou satellite navigation system, which is available to that country.

SCENARIO 2 CHINESE MARITIME ASSETS' PROACTIVE PRESENCE IN IOR

As previously stated in its Defence White Paper from 2008, the Chinese Navy's envisioned function of conducting international cooperation in far-off areas had by 2015 gradually evolved to include safeguarding its vital SLOCs and foreign interests. China has prioritised the high-technology development of its naval weaponry and revised its operating plans in order to achieve the latter goal. The PLA Navy continues to gain capacity and numerical supremacy thanks to its rapid warship construction tempo. Since 2013, Chinese shipyards have been building between 17 and 20 ships and submarines per year. By 2035, the PLA Navy, which now has roughly 270 blue water competent ships, is anticipated to surpass all other navies in size.

Obviously, the Indian Ocean cannot accommodate the deployment of the full force. The majority of the PLA naval force will inevitably need to be stationed closer to home due to current geopolitical circumstances and the resulting maritime security imperatives in the Pacific Ocean. Though hypothetically, this would equal to 17 platforms if China sent even 10% of its deployable blue-water forces—taking approximately two-thirds of operational availability, or 170—to the Indian Ocean. The net force level that could be deployed in the IOR would consist of about 12 vessels—eight destroyers/frigates, one/two replenishment ships, one LPD, one nuclear-powered attack-submarine (SSN), along with its support ship—after excluding its strategic-role nuclear-missile-armed submarines (SSBNs) and the conventional submarines needed for tactical employment in the western Pacific.

This level of force may potentially consist of an aircraft carrier strike group (CSG). The “Chinese maritime force” (CMF) could consist of 26–28 vessels when combined with other types of support- and special-purpose vessels, which are also being swiftly inducted in huge numbers. A domain expert is not necessary to understand the increased threat posed by such a sizable force being permanently stationed in India's principal maritime interest regions.

CHALLENGES TO NON-TRADITIONAL MARITIME SECURITY

Non-traditional maritime problems are those that are essentially non-military in nature but pose a significant risk to the existence and welfare of the State and its citizens. According to the degree, scope, and seriousness of their influence on national security, the difficulties that India and the rest of the Indian

Ocean littoral are confronting can be generally categorised. They would consist of:

1. Renegade elements acting at sea or from it that are supported by the state
2. Non-traditional human-made security challenges
3. Non-traditional security issues brought on by natural disasters

ROGUE ACTIONS BY NON-STATE ACTORS ON OR FROM THE SEA

The most serious non-traditional security threats to India are acts of terrorism committed at sea or coming from the sea, as well as related operations like gunrunning and the trafficking of WMD with or without State help. According to one nautical analyst, maritime terrorism may take the following forms:

1. Armed robbery used to support terrorism
2. Direct assault on single-buoy moorings and offshore oil- and gas-platforms
3. Direct assault on a port facility or harbour or on a ship at anchorage or alongside
4. Direct assault on nuclear and industrial installations close to the coast
5. Hijacked ships' indirect attack on a city or installation on land:
6. For strikes in the hinterland, infiltration
7. Inconveniencing safe passage by sinking vessels confined spaces like straits or channels

Of course, the Mumbai terror attack in November 2008 by terrorists aided by Pakistan was undoubtedly the most noticeable act for India. The most popular abbreviation for this is “26/11”. The biggest threat currently facing all internationally networked economies is posed by these terrorists' freedom to travel across largely unrestricted oceans.

Gun trafficking across borders by sea is said to be more simpler. A significant instance of this occurred during the investigation of the 1993 Mumbai serial blasts, when it was discovered that a sizable cache of weapons, ammo, and explosives had been sent to the coast of Raigad (close to Mumbai) specifically for this reason.

An additional frightening aspect of the threats associated with the sea is the spread of nuclear technology. These kinds of illicit activities continue unabatedly, according to the periodic seizures of such contraband. For instance, the Kandla Port authorities in 1999 captured the *Ku Wol San*, a North Korean freighter destined for Pakistan with a cargo of parts purportedly intended for use in the manufacture of weapons. A more recent example involved the detention of a Chinese ship, the *Da Cui Yun*, in February 2020 for transporting an industrial autoclave that was used to manufacture ballistic missiles.



CHALLENGES TO MARITIME SECURITY CREATED BY ANTHROPOGENIC CAUSES

Piracy, hostage-taking for ransom, armed robbery, drug trafficking, human trafficking, ocean pollution, and illegal, unreported, and unregulated (IUU) fishing are just a few of the non-traditional security threats that involve rogue elements and criminals at sea. Due to its extensive coastline and dysfunctional government, Somalia became a haven for piracy. At its height in 2011, Somali pirates were responsible for 24 of 33 hijackings and 237 out of a total of 353 episodes of piracy. Only a coordinated and prolonged global naval campaign could bring piracy in the Gulf of Aden and off Somalia under control.

Terrorism is still financed by the manufacturing and trade of heroin, which originated in the “Golden Crescent” region of Afghanistan and Pakistan. The “Golden Triangle,” which consists of a number of South-East Asian nations, is another significant route for the transit and trade of illegal drugs. This region is known as the “Golden Quadrilateral” because of the nearby Chinese province of Yunnan, which serves as both a major market and a favoured route for the passage of South-East Asian drugs. Drug trafficking organisations from the Golden Quadrangle carry drugs to the US and Europe via the Maldives and Sri Lanka.

The Indian EEZ is rife with illegal, unreported, and unregulated (IUU) fishing, notably in the Andaman Sea. China and Taiwan are the main players, while fishermen from Sri Lanka and Indonesia also engage in illicit fishing and poaching. As many as ten Chinese trawlers belonging by the Dongxinglong Ocean Fishing Company, which when combined were capable of harvesting a whopping 80,000 tonnes of marine life in a month, were arrested off Ratnagiri Coast of Maharashtra in June 2019 in one particularly large-scale infringement.

NATURAL CATASTROPHES AND CALAMITIES

Natural disasters in the Indian Ocean, as in other oceanic environments, result in significant loss of life and property in coastal communities and create unimaginable suffering for local residents. These could take the shape of hurricanes, tsunamis, sea level rise brought on by global warming and the subsequent flooding of land areas, excessive salinization of soil and potable water in coastal areas, etc. In reality, a doomsday scenario based on current estimates of sea level rise projects that the majority of the Maldives would be inundated within the next 20 years and the entire nation by 2085.

The Andaman and Nicobar Islands, as well as the coastal regions of Tamil Nadu, Sri Lanka, the Maldives, Banda Aceh in Indonesia, and many other places along the Bay of Bengal’s rim, suffered significant property damage and casualties as a result of the 2004 Indian Ocean tsunami. Several recent examples of these natural disasters are the Super-cyclone Nargis that struck Myanmar in 2008, the Phailin that devastated Odisha in 2013, the Hudhud that ravaged Visakhapatnam in 2014, and the

Tauktae that will severely strike Mumbai and the Konkan coast in May 2021.

INDIAN MARITIME SECURITY AGENCIES’ MITIGATION OBJECTIVES

Indian maritime security forces like the Indian Navy and the Indian Coast Guard would obviously be the first responders as both conventional and novel maritime security issues facing India would occur at-, from, or through the waters. However, addressing, mitigating, and controlling such a wide range of issues calls for a comprehensive, “whole-of-nation” strategy. In order to do this, the Indian security establishment must take a multi-pronged approach that includes accepting, avoiding, controlling, lowering, and monitoring risks in order to identify solutions that are specifically tailored to a certain circumstance.

TECHNIQUES FOR REDUCING COMMON MARITIME SECURITY ISSUES

While the “acceptance” of hazards related to potential maritime conflict resulting from the twin scenarios stated above may be seen as a “given,” it is rarely possible to completely eliminate these dangers. Therefore, pragmatism would suggest “lowering” these risks with a thorough “monitoring” method and a trustworthy “control” mechanism. The major method of “monitoring” the environment is through activities that improve Maritime Domain Awareness (MDA). The deployment of effective operational tactics to “control” such risks would follow naturally from this.

MAINTAINING MARITIME DOMAIN AWARENESS OF TRADITIONAL THREATS (MDA)

In the context of physical security, MDA refers to the capability to efficiently locate, track, and identify the presence of possible hostile targets in a maritime environment that is uncertain and unpredictable and contains neutral commerce. MDA’s key components include the following:

1. Long-range UAVs and maritime reconnaissance and AEW aircraft as necessary to complement satellite-based surveillance.
2. Systems used by the Joint Services to identify the enemy.
3. Systems for subsurface surveillance at strategic IOR locations.
4. Strong, fast, high-bandwidth networking infrastructure with the necessary built-in secrecy.
5. Capabilities for efficient cyberspace monitoring.

CONTROLLING CONVENTIONAL THREATS

- Anti-Submarine Warfare (ASW) Operations. The Indian Navy’s ASW capabilities must be prioritised at the strategic, operational, and tactical levels due to Pakistan and China’s potential use of contemporary



submarines and other potent undersea hardware, such as unmanned submarines, manned submersibles, and UUVs for sea denial.

- Anti-air operations and air defence. The addition of contemporary carrier-based aircraft, unmanned aerial vehicles, and airborne observation equipment has undoubtedly improved the Indian Navy's ability to undertake anti-air operations. The acquisition of AWACS, including carrier-based Airborne Early Warning (AEW) aircraft, is necessary in this context and merits additional emphasis.
- Capabilities for Joint Expeditionary Missions. Since one of the main functions of a maritime force is to influence events on land, the Indian Navy must develop strategic sealift capabilities by acquiring heavy-lift helicopters and air-cushion vehicles in order to get ready for massive amphibious operations in the IOR littoral. In addition, the Indian Army has to allocate more role-specific land-force units, which calls for close coordination with the three Services' amphibious, marine, and special forces.
- MCM (mine countermeasure) warfare The success of subsequent maritime operations will directly depend on the Indian Navy's capacity to maintain open designated channels across choke spots and entrance/exit routes from harbours for the safe transit of warships during a conflict. In either of the two scenarios outlined above, the persistent major shortage in MCM hardware—mine-sweeping and mine-hunting ships and equipment—could cost the country dearly, so addressing this deficiency must be given top priority.
- Special Operations. A innovative move that has to be improved upon is the establishment of a unified "Special Operations Division" under the Integrated Defence Services Headquarters to quickly respond to and combat State-sponsored or non-State acts of terrorism.
- Joint Operation Future battles will always be fought by troops working together. The three Defense Services must work together in order for joint missions to be successful. This cooperation and coordination must include the adoption of common doctrines, the coordination of strategies, achieving commonality in equipment and standard operating procedures, etc. It also includes other associated forces, such as the Indian Coast Guard.

STRATEGIES TO ADDRESS NON-TRADITIONAL MARITIME CHALLENGES

The Indian government undertook a significant upgrade of its coastal security assets, operating processes, and structures in the wake of the 26/11 attacks. In collaboration with the Indian Coast Guard, state maritime police forces, port authorities, and other

central/state government organisations, the Indian Navy was named the principal agency in charge of overall Coastal Security. The following are the key actions taken to prevent a repeat of November 26, 2008:

- Joint Operation Centers (JOCs), staffed and run jointly by the Navy and Coast Guard, were established in Mumbai, Visakhapatnam, Kochi, and Port Blair.
- For real-time marine domain awareness, a National C3I Network was created, connecting the Navy and Coast Guard at both the field and apex levels.
- The Sagar Prahari Bal was established to guard naval bases, vulnerable assets, and vital points along the coast. It consists of 1,000 men and 80 Fast Interceptor Craft (FIC).
- Indian Navy, Coast Guard Ships, and aircraft increased surface and air surveillance around the coast and offshore development regions.
- Auto Identification System (AIS) Chains and coastal radar stations were installed.
- Union Territories and coastal states now have stronger Marine Police.

India has been continuously stationing at least one naval cruiser in the Gulf of Aden to accompany trade ships for more than 13 years in an effort to reduce piracy, working with the fleets of other nations. The Indian Navy has been quite proactive, and in fact, in November 2008, the INS Tabar became the first ship to ever decisively fire upon and sink a pirate mother ship.

While the Indian Navy's designated military and diplomatic functions, as per the Indian Maritime Doctrine of 200928, deal with the conventional difficulties already outlined, the actions taken under its constabulary and benign roles are precisely what are needed to cope with unconventional challenges.

The Covid-19 epidemic has left behind a number of distinct issues in the maritime sector. The Indian Navy, however, has done a good job of responding by taking a three-pronged approach that includes: (1) keeping its own personnel free from the pandemic; (2) helping the country and States in India's immediate neighbourhood to lessen the impact of the pandemic; and (3) maintaining operational readiness to address traditional and other non-traditional security threats in the maritime domain. Major Covid-related tasks carried out by the Indian Navy include the delivery of medications, food, and medical assistance teams to the Maldives, Mauritius, Madagascar, Comoros, and Seychelles as part of India's Mission SAGAR initiative, as well as the repatriation of Indian personnel from the Maldives and Sri Lanka in May-June 2020.

CONCLUSION

India does recognise that modern ideas of force employment and evolving risk carrying situations in the IOR call for joint forces that are well-equipped to carry out the full



range of maritime tasks. The current restructuring of the Indian Defense Forces, which is being overseen by the office of the Chief of the Defence Staff and centres on the establishment of Joint Commands and Integrated Theatre Commands, is in fact a very pertinent and timely initiative aimed at achieving this desired end-state. This will promote better jointmanship at both the conceptual and operational levels and lead to greater integration among the three Services.

An Integrated marine theatre in the maritime domain, with the Indian navy as the lead Service, would be well-suited to deal with the full range of conflict, including traditional and non-traditional threats, as well as to project power up to India's secondary maritime interest regions. In addition, the recent appointment of the National Maritime Security Coordinator (NMSC) under the auspices of the National Security Council Secretariat — a move that had been overdue ever since the terror attack of November 2008 — will give the Indian efforts to secure its non-traditional challenges structural robustness and implementational heft.

However, the most important aspect of maintaining “Core Competencies” over the long term would include putting a specific emphasis on niche areas linked to warship and submarine construction, aircraft manufacture, and the creation of a defence industrial base that is prepared for the future. The Indian government's recent reorganisation and corporatization of the ordnance industries is a step in the right direction toward achieving these goals. Investing in future technology should also be advanced as a project at the national level. This would not only accelerate India's naval readiness to cope completely with novel maritime security issues, but it will also ensure that China and Pakistan's asymmetric advantages over India, which they jointly desire, are balanced in the marine sphere. Rear Admiral K Raja Menon, a renowned maritime thinker from India, succinctly stated this imperative in his writing:

“...after Galwan and Pangong Tso, we will clearly approach the larger picture from a position of tactical inferiority, unless we develop some punitive capability, which it seems could only be in the Indian Ocean.”

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